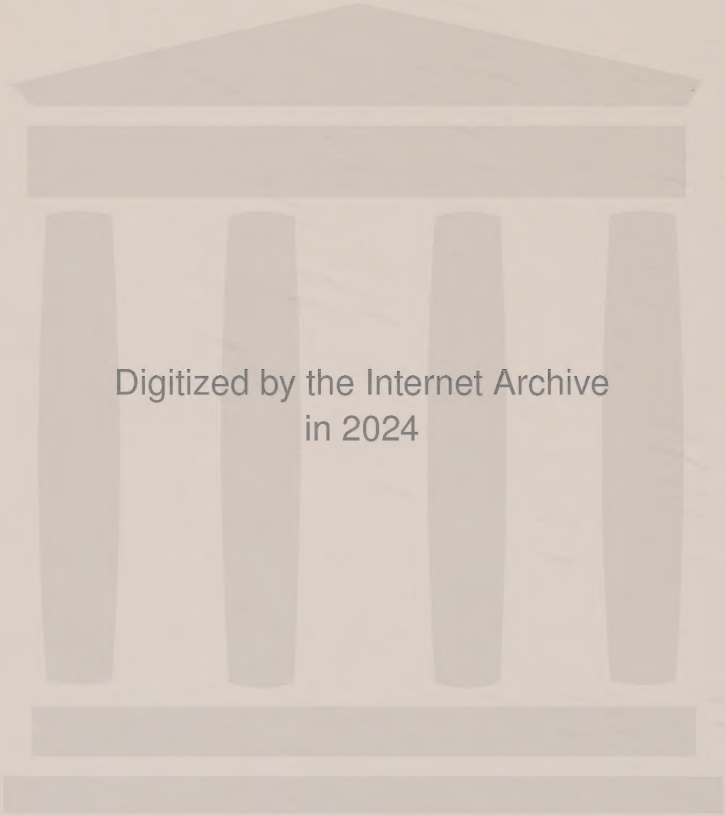
# American Education

## Its Men, Ideas, and Institutions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# AMERICAN EDUCATION

*Its Men,*

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*Institutions*

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# THE QUALITY OF THE EDUCATIONAL PROCESS

## IN THE UNITED STATES AND IN EUROPE

BY

WILLIAM S. LEARNED

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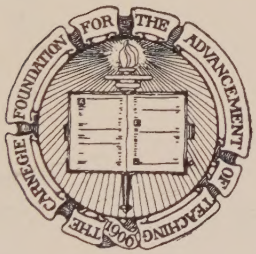


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# PREFACE

A LITTLE more than two decades have gone by since the Carnegie Foundation began its studies of education. In this brief period a notable advance has been made in the growth of the schools and colleges of the United States. Not only has the number of secondary schools and colleges been greatly increased, but both in secondary education and in higher education many more courses are offered, and better facilities in the way of buildings, libraries, and books are provided; the twenty years just drawing to an end mark an astonishing growth in the enlargement of the courses of study and in the facilities for the education of children and youth of the American people.

Out of this remarkable growth in the educational system of the country and in the relative number of those who are drawn into its influence, no one can doubt that great gains have come to the whole people. Opportunities for study and for reading have been made available to all groups of the body politic. The absence of class consciousness in the United States is due in no small measure to the fact that the children and the youth of all the people are in wholesome contact in the schools and colleges and universities of the country.

Along with these gains are certain disadvantages. The great increase in the number of subjects taught calls for many more skilled teachers than the country is at present supplying. The great variety of material in the curriculum has made for a certain superficiality in training. The effort to open the doors of the secondary school and of the college to all who may desire to come has tended to bring the ablest students to the same plane of achievement as the poorest. To-day those who have to do with the secondary school and with the college are seeking to bring the agencies of education to a more simple, sincere, and thorough ideal and are seeking also to provide the opportunity for a more free and vigorous intellectual development. It is clear that the true interests of democracy are not served by an educational system that sacrifices the aspirations of the ablest pupils to those whose abilities are of mediocre quality. The school and the college cannot make a separate course of study for every child or youth, but they can, broadly speaking, offer to

all who possess clearly marked intellectual capacities an opportunity approximately in conformity with their abilities.

In the endeavor to accomplish these two ends — a more sincere and thorough intellectual training for all and, for the more capable, opportunities adapted to draw out the best that is in them — something can be learned from the experiences of the older European nations. The problems before us are problems which they have met and have solved with a considerable measure of success. We would be a dull people if we could not learn something from the experiences of our most enlightened and intelligent neighbors.

The higher institutions of the country have, in the last generation, received an extraordinary stimulus from the universities of Europe. Hundreds of American students have studied each year in European universities, and the effect of their studying has been to stimulate and to improve the quality of university work in an extraordinary degree, particularly in the field of scientific research.

More recently the Rhodes scholars at Oxford, many of whom have returned and have become teachers, have come to exert a wholesome influence in the directions suggested by their own experiences.

The secondary schools of European countries have had less reaction upon secondary education in our country, but it is equally true that in this field we may also gain much by a study of the methods and of the strength and weakness of secondary education, particularly in the three countries with which our intellectual intercourse is most constant — England, France, and Germany.

It will be almost universally admitted that the secondary school in these three countries succeeds in imparting to its pupils a quality that our schools do not, and that, along with the intellectual quality which is developed by hard and constant work, the student acquires also a pleasure and a satisfaction in the intellectual life. This general result may be attributed to many causes — old and long-developed social tendencies, the presence in the schools of a highly-trained body of teachers, and the surroundings of European life that appeal to the imagination and the ambition of the intelligent boy or girl. But in no small measure this success of the European secondary school is due to the curriculum, the methods of its application, and to the character of the tests that it re-

quires both for admission and for promotion. One who compares a European community and its university with an American community in similar surroundings and its school system cannot but believe that the quality of the educational process itself must be a large factor in determining the sincerity and the vigor of the intellectual life to which its students attain. It has been thought, therefore, that in the present phase of educational development much could be learned that would be of value in American secondary education by a study of the secondary schools of England, France, and Germany.

In any field of intellectual activity nothing is more wholesome, or sometimes more disconcerting, than to look beneath the surface and to enquire whether the results are such as have been assumed. In formal education this attitude is peculiarly desirable. In no other field is it more easy to misjudge the truth or to rest content with forms and formulae and to miss the spirit and essence. Few conditions are more varying than those upon which sound education depend, yet the very terms of our civilization compel us to organize these as best we can and society must bear the consequences of our wisdom or of our mistakes.

For the purpose of a thorough scrutiny of its own processes of education the ways of the foreigner in seeking a like end are perhaps the most fruitful aid of which any nation can avail. Such comparisons are too often hasty, superficial, or biased, but a study of international contrasts that takes into account the difference in language and in cultural background, that is willing to make allowance for the different points of view, cannot fail to be of service to an intelligent and adaptive people.

Such a study as this has been the object of the present bulletin. Far from desiring to present the foreign educational systems in their entirety, the aim has been a thoroughly practical one throughout. The writer has invariably asked: What elements in educational procedure has this nation found most effective? Do we possess these methods? If not, could we make use of them? Foreign nations are studying with care and with discrimination the novel features of the American educational practice of to-day and are glad to avail themselves of whatsoever seems, in their judgment, fruitful and productive for their own countries. It would be a singular reflection upon our own intelligence and upon our open-mindedness if we were to refuse the tonic criticism of older nations that

have long wrestled with the educational problems that lie just ahead of us.

The teaching of the mother tongue is perhaps the fundamental task of the school in every civilized nation. In the schools of the United States we must admit that the training in the mother tongue leaves much to be desired. The boy or girl who has finished the secondary school and entered college in many cases is unable to write or speak good idiomatic English. He has not learned to enjoy good books. On the other hand the graduate of the German *Gymnasium* or of the French *lycée* or of the English *public school* can speak and write his mother tongue with clearness and discrimination and he reads. What is the educational process in the German, the French, or the English secondary school through which a student acquires a mastery of his own tongue while the American boy fails to do so in so large a number of cases? Dr. Learned has sought to answer this kind of question in the present bulletin.

It would be quite impossible to record formal acknowledgments to the multitude of friendly hosts and advisers who in the three countries and over many months furnished the basis both of fact and of opinion from which most of the conclusions were drawn. It is gratifying, however, to be able to testify on behalf of the Foundation to the helpful personal relations enjoyed everywhere in academic circles by its representatives abroad alike in this and in other studies. In seeking light on our own problems, it may well be hoped that we may also contribute something to an international appreciation of the larger educational purpose common to all agencies of education.

HENRY S. PRITCHETT.

# PART I

# THE QUALITY OF SECONDARY EDUCATION IN THE UNITED STATES AND IN EUROPE

# PART I[1]

# THE QUALITY OF SECONDARY EDUCATION IN THE UNITED STATES AND IN EUROPE

## INTRODUCTION

WITH participation in the recent international conflict, the American nation may be said to have attained its majority in an international sense. After struggling for three hundred years in the conquest of a great continent, it appeared as an important factor among the nations that have created western civilization — nations which it has long regarded as the source of its learning and the inspiration of its art, its music, and its letters.

What does this relation signify in a future concerned with a slow and painful recovery of Europe while our resources rapidly multiply in a country almost untouched by the war? Are we to assume our full responsibility for maintaining and advancing the achievements of the mind and the duty to promote in the interest of the whole world those causes that are the chief glory of mankind?

The answer to this question depends chiefly on what we do in the education of our people. As a pioneer the American was a skirmisher at the outposts of European civilization. His problem has been to consolidate and advance his own position. His theory of education has never been to select and train the most capable minds in order to advance the national welfare by intellectual achievement, as has been in general the plan in European countries. On the contrary, his democratic slogans impel him to devise, so far as possible, a common platform on which all may be brought up together, and he does not ask whether any particular individual so treated has either the brain power to rise, or the will to use it.

That both American theory and American practice have furnished a powerful antidote to the class discrimination long characteristic of European procedure is beyond dispute, but it is probable that neither method, taken alone, is a suitable permanent answer to the problem of education. So extraordinary has become the faith of American parents in a single institution which we have all conspired to praise, that well over half of all the boys and girls leaving the elementary school are at least entered in the secondary school — many times the proportion to be found in any other great country. This involves a momentous responsibility on the part of those who are trusted to make these precious years bring a full return for every child concerned, and to secure like advantages in those cases where it is not yet permitted. The vast question needs frank analysis and critical study, particularly a sympathetic study of foreign procedure and experiment, before we shall dare to believe that we are on firm ground. The following hasty survey can do little but suggest where our most obvious problems lie. The facts are already familiar to students of comparative education,

[1] First printed in the Twentieth Annual Report of the Carnegie Foundation, 1925, pp. 83–117.

but never have they appeared with greater force than at this moment, when our system of training seems on the point of breaking down with the impossible load that it has so cheerfully and perhaps thoughtlessly assumed.

What are the weaknesses of our situation? An education is normally, and we believe rightfully, conceived to be for those who can learn and who desire to learn. Such a function is in the highest degree selective. What has brought it to pass that our schools and colleges to-day are literally overwhelmed with persons who neither can learn nor desire to learn? Undoubtedly it has been the very estimable wish to confer on as many as possible the advantages of learning—spiritual, social, and commercial—and the belief that that end can be attained by luring them into and through such schools and colleges as we now have. What, however, has been the result? As attendance has relatively increased, the average of ability has sensibly diminished, and the will to learn has weakened still faster. Instead of keeping our best notions of education virile and of inventing new forms of training appropriate to the ideals and capacities of the newcomers, we have clung to a unity that has long since betrayed us and have thereby sunk to obvious mediocrity. Released from genuine intellectual demands, an abounding student energy has raised a crop of general activities that have not only subordinated the main task, but to a very great extent, both in student and in public opinion, have assumed the crown of sanction for the whole process. We bewail the fact and seek to "regulate" student activities, without perceiving that if what we still believe to be the major operations were convincingly carried out, the others would of themselves fall into the proper perspective.

## I. SECONDARY EDUCATION IN THE UNITED STATES

Since secondary education is the key to the school situation, let us for the present confine our attention to this phase of the general problem.

A capable and ambitious youth seeking appropriate education in American public schools is the victim of at least three, and often four, conditions that react to his disadvantage—in some respects almost neutralizing the intellectual effort which he actually makes:

1. The schools are enormous, especially in cities, where the best trained teachers are available, teachers who under favorable conditions could do excellent work. In a city like New York the enrolment in a single school may run to over seven thousand pupils. These are not split into coherent groups of pupils and teachers, intimately associated on a homogeneous basis: they operate on a strictly standardized factory plan, even to the punching of a teacher's time-clock. With each half-year, class units and teachers are mechanically shifted in an ingenious checkerboard distribution to fit the "program" that will most nearly permit each pupil to take the fragments of subjects that he in his wisdom has selected. A teacher may have a pupil for a single half-year and never see him again, and a pupil may have eight different

teachers in doing four years' work in one subject, if indeed he give so much time to one subject. The mechanics of the whole operation fill the eye and mind, and what a pupil or a teacher really is — the essential initial discovery in genuine education — is as completely masked as the personality of a guest in a mammoth hotel. In the small schools the teachers are correspondingly younger, not well trained, and less experienced, so that here also, though for different reasons, the opportunities for educative contacts are slight.

2. The schools are non-selective and undifferentiated with respect to the quality of the pupil. A low average level of operation is the result. Any pupil far below the average of ability may graduate from the elementary school and be received automatically into the next higher institution, where he stands on equal footing with all others — possibly with a poor neighbor's son who may be the most brilliant lad his school ever sent up. Intellectual prince and intellectual pauper make their selections and are grouped promiscuously side by side. They keep step together from four to six years, one doing his poor maximum and the other his fair minimum on material suited to neither but determined by the weaker pupil. Each doubtless "gets something," as the phrase goes, but the capable mind is bored and contracts lazy and wasteful habits, while the other is depressed by continual failure with things too hard instead of encouraged by clear success at his own level.

Some help comes from the fact that good pupils choose the harder subjects in order to prepare for college. Elimination, too, in the early years often as high as fifty per cent, tones up the surviving group. But this is no credit to the school. Quite the contrary. The pains taken to guard the borderline, not to keep the unfit out, but to keep the tottering pupil in, is one of the anomalies of American education.

3. The curriculum is a rope of sand, without texture or organization. Effective education through related ideas is thereby sacrificed to the mere registering of information. This fact will be made clearer later by comparison with genuine curricula. Convinced that knowledge is power, we have assumed that presenting information is identical with conferring knowledge, and have hastened to make broad this easy and royal road to an educated democracy. Information on almost any subject can easily be formulated into convenient units. And it is possible for a mind even of very limited powers, if socially docile, and inspired by filial duty, personal pride, commercial advantage, or any one of a dozen other extraneous motives, to take in and give out this information in recognizable word or paraphrase without seriously knowing or caring what it is all about. This is positively all that the school, and usually the college, requires, and of this it asks but a fraction — sixty per cent. For fear of evaporation the process is checked up at once — daily recitation, written review, monthly test, and term examination. These concluded, responsibility ceases, and "credit" is recorded, of which no future misstep, even though it discloses total ignorance, can ever deprive the pupil.

Zeal for our broad, trunk-line school, where every child of democracy may come and

choose the information that most attracts him, has blinded us to the fact that "power" disappears under such a régime. The knowledge that is power presupposes a mind actively at work and bent on the process of self-education. Such a mind requires the meanings and relations of its information, and finds little advancement in minute and disconnected masses of fact that must, from the nature of our system, stand neatly alone. Instead of developing an agency to attend, supply, and encourage a pupil who is using his own mind, we have done our best to devise a vehicle that will *carry* the minds of as many as choose to get on board. To graduate from either high school or college to-day may hardly be rated as, of itself, an intellectual achievement. It is at best a moderately worthy exhibition of certain moral qualities.

4. The teaching staff, while usually composed of admirable men and women, is not a staff of scholars. Good pupils are thus deprived of the one essential aid from without that might contribute to direct, accelerate, and economize an education that should be already proceeding vigorously from within. Excepting many scholarly and fully competent teachers, usually to be found working under impossible conditions in our larger cities, the staffs of our public high schools are amateurish and superficial in their knowledge. Mediocrity reigns, and the case of these teachers is the more pitiable because for the most part they have excellent ability and have spent considerable time on their education. But they are the product, in school and college, of the conditions already described. Instead of living, year after year, with steadily growing conceptions in a few great fields, where competent teachers have explored with them, through many facts, the large and significant connections that give meaning to each field, and that bind one field of knowledge to another, these instructors have been hurried through a series of disconnected samples of knowledge, each considered, weighed, and checked off for itself alone, many of them "worked up" out of convenient textbooks and "passed off" outside of school, most of them selected on the principle that a curriculum should reflect the universe with a dab of information out of each quarter. They have been given no responsible, independent experience in educating themselves, nor have they been selected on a basis of well-tested intellectual capacity and achievement. Such teachers abound in fine ideals, they love American life and are devoted to American youth, but they do not know enough of the inner values of the subjects they try to teach to convince even themselves that a thorough dealing with these ideas should constitute the main business of school and of college life.

These four aspects of secondary school life in America require, we believe, fundamental revision before we shall be fitted to undertake seriously the task which the logic of circumstances presses upon us more and more. It is a revision that must, of course, rise coherently out of our past and present, and must suit the conditions of our life as we find them. The present situation is explicable and to a great extent justifiable in view of the path by which we have come. It would be foolish, however, on that account to fail to note the valid lessons that we can learn from the experience of older nations. They have long faced conditions of population that are just

beginning to be felt here, and have much to teach. They for their part have studied us with close attention. Gradually they are adopting what in our practices they find admirable, and avoiding what they consider weak or temporary. The standards by which they thus discriminate should be of significance to us.

## II. SECONDARY EDUCATION IN EUROPE

The mainspring of education in Europe is an immemorial reverence for learning. The whole body of human knowledge and of scholarly achievement is conceived as constituting the supreme achievement of the race, to be preserved, increased, and handed on to posterity as its most precious possession.

Higher education, therefore, is planned, not with a view primarily to securing the satisfaction of the individual, but with the purpose of selecting, first, those who are competent and worthy to cherish the human heritage in learning and to add to it; and, second, those who may be made skilful in appreciating and applying it in the guidance of human affairs.

This attitude has important consequences. Higher education in England, and to a still greater degree in France and Germany, is rigidly selective, instead of, as with us, sentimentally inclusive. The university systems of all three countries are designed for the purpose of winnowing out the man of fickle and merely imitative purpose, the weak and unsteady thinker. They are calculated to develop and select the independent, resourceful mind that is certain of a matured intellectual purpose and practised in sustained intellectual performance.

The higher secondary schools in these countries being a part of this scheme contribute directly to it. The product eventually desired is foreshadowed in them with great distinctness. They serve other purposes as well, to be sure, in their early grades, but they fix and maintain the standards by which the selection of brains and personality for the finest uses of the nation goes constantly forward.

The contrast at this point with the American theory and practice is striking. The European secondary school fixes a high mark toward which each aspirant rises just in proportion to the force and quality of his individual capacity, which is abundantly tested in the process. The American in his single, all-embracing, low-standard school invites every one to come in and enjoy an experience that will distinguish as little as may be between those of high and low mental qualities. In one case graduation is a standard held above the mass to which a few may attain by reason of pronounced ability and keen effort. In the other case, it is a standard placed below the mass to exclude the few who are notably incapable. Whether or not a graduate of the high school has power really to think must be determined by other means; its sanctions lie elsewhere.

We turn now to seek such pertinent suggestions as the institutions of the three leading European nations offer. The schools of England and Germany have always

been rather better understood by us than those of France because of racial kinship. Of these two the German have been developed with greater consistency and faith in the significance of education. Furthermore, the latter have survived economic collapse together with social and political revolution in favor of democratic ideas; their condition to-day should consequently be doubly instructive, as indicating whither rejuvenation of such institutions tends.

We purpose, therefore, looking into the general European practice as exemplified chiefly by Prussia, a state numerically comparable with France (omitting Alsace Lorraine) and with England (including Wales). Thereafter the varying procedure in France and England will be briefly reviewed.

### A. Secondary Education in Prussia

Until the close of the war, the higher secondary school in Prussia was a three-type institution. Since then a fourth has been added. These several types differ much less from one another, than would four random curricula in an American high school. Greek and Latin; Latin and modern languages; modern languages, science, and mathematics; and, more recently, German civilization and modern languages — these represent the four distinguishing combinations of emphasis, though a large portion of the work done is identical in all four schools.

In the American school, the variation thus exhibited would seem trivial; it would be accounted merely a different pattern, an individual election as to the manner of securing sufficient "credits" to graduate or to go to college. To take Latin or to omit it, is of importance chiefly in the school records; it has little significance in distinguishing the actual mental horizon and spirit of one student from those of another, and none at all in impairing the solidarity of the school's social life as shown in the common activities — social, athletic, dramatic, musical, etc.

To the German, on the contrary, such a difference in curriculum is all important. To study Latin in the *Gymnasium* involves 56 year-hours[1] per week, spread over nine years, as compared with a maximum of 20 year-hours spread over four shorter years in our high school. The Latin boy has nutriment of a different kind and from a totally different source than that which serves the non-Latin boy. It is of a different stuff, and with German teachers it results in a different boy from one who has spent, say, 78 year-hours in science and mathematics without Latin. The time element is of great significance. For example, the pupil of the classical *Gymnasium* spends more time solely on Latin and Greek than the American high school pupil would if he were to study nothing else throughout his entire high school course.

So far-reaching are these differences, so intensively is each branch followed and emphasized, and so keenly is the ultimate goal of each carefully planned combination visualized that the schools themselves tend to remain physically distinct. They

[1] The term year-hour is used to indicate one period of class session with the instructor weekly throughout the school year.

usually occupy buildings in different locations, each bent solely on its particular task. While a four-year American high school may enroll thousands of pupils and, like the telephone service, looks forward complacently to indefinite extension of its mechanical activities, an *Oberrealschule*—modern languages, science, and mathematics chiefly—with 700 pupils distributed over nine years is considered unwieldy; its average size in 1922 was less than 400 pupils, its maximum, 805. The average size of the *Gymnasium*, which is the most frequent type, was less than 300 pupils, its maximum 685. Only eight per cent of all types of higher secondary schools had more than 600 pupils in 1922. The average size of the 108 schools in Berlin was 473. This condition makes possible long and intimate acquaintance between master and pupil, does away with administrative formalities and clerical machinery, opens the way to complete revelation of the pupil's powers and to an education in ideas that actually shapes a boy's mind.

1. *The Curriculum*

In addition to the favorable size of these school units, two other factors differentiate them from any educational process known in America—the teacher and the curriculum. We will consider the latter first.

It is a nine-year progress, wherein nothing is ever dropped. Once a subject is started, it *grows* from its point of departure to the end of the course. Hence no study is begun that is not profitable for a steady and progressive development, or that is not itself a chapter in the organic process of such a development. Since education consists essentially in being conscious of significant relationships, and in being able to perceive them, no pains are spared to maintain the integrity of all possible connections, between subjects as far as practicable, but at all events in the related conceptions of a single subject as it unfolds.

Necessarily, therefore, the formal curriculum is one of great apparent simplicity: religion, German, three (or two) out of four foreign languages, history (with civics), geography, mathematics, natural science, and drawing, constitute the unbroken threads on which each pupil weaves the pattern of his school experience with ideas.

This continuity of the warp of education is a matter of singular importance; indeed, it is the *essential* fact of European schooling: it makes possible that background of mastered ideas that is the necessary basis of all clear and individual thinking. When a subject, conceived and organized in unitary fashion, is disclosed as a growth through successive years, all thought and effort spent thereon has place and purpose. It is the *relating* of each new aspect not only to that learned yesterday but also to that of last year or of the year before, that has worth and stimulus for the active mind, and it is in the building up of such relationships that a skilful teacher finds and trains in his pupils capacities for insight that induce the habit of reflection. The pupil who knows from experience that a new fact or a principle will reappear year after year in modified forms or with enlarged applications confronts it in an atti-

tude unlike his who believes it will be shelved forever after the next term examinations. It is to his obvious interest to understand it. There are no tests or examinations in the American sense from one end of the curriculum to the other. The object is not to see how many facts can be forced through a pupil's superficial mental processes and deposited on an examination paper, but to ensure a permanent increase in his mental resources. Attention is focused solely, therefore, on a clear understanding and a power of adequate expression. The pupil becomes conscious gradually that the subject is organized about certain large and stable conceptions. Through successive terms and years these are reinforced and refined by continual association with fresh facts, and eventually they become his own possession. It is the gradual creation of such clear fundamental ideas through constant comparison and assimilation over a long period, and the use of these ideas in further fruitful combinations that, in European opinion, constitutes serious education for minds capable of such pursuit. It is exercise in significant thinking.

The simplicity of these stout longitudinal threads of the curriculum is supplemented by an extraordinary richness in the development of each subject itself. European schools have not fallen prey to the utter disorganization that has overtaken the American secondary curriculum, yet the Prussian provisions allow abundant latitude for genuine differences in the aptitudes of capable minds by pronounced shift in emphasis. One boy may devote 90 year-hours to Latin and Greek, while another spends 80 on science and mathematics and takes no classics, yet the first will also have 50 hours of science and mathematics in a nine-year course that progressively knits up the important features of these fields into a significant whole and relates them in every possible way to the outcome of his classical study. The effective use of separate institutions comes here to light; such a course is not the series of isolated, interchangeable units in mathematics and science characteristic of the American school with its myriad aims; it is deliberately organized throughout with sole reference to the needs of the classical student.

The degree of profitable "enrichment" attainable in any given curriculum of study depends upon the number of valuable ideas that can be brought into a coherent relationship and, thereby, given a significant and lasting place in the pupil's mental scheme of things. The American high school presents a long list of subjects that may be chosen in yearly or half-yearly fragments, each tending to be self-contained owing to the fact that under a system of free election it is impossible to count on any two pupils having had the same previous work. Beginning after an abrupt break with the eighth grade, a pupil may start out with English, Latin, algebra, and general science. After the first year mathematics may be avoided if algebra grows distasteful, and Latin may later be discarded for French. English must usually be retained, and detachable units of history, botany, physics, Spanish, civics, etc., eke out the curious medley of stipulated "credits." Under such a system nominal "enrichment" becomes actual impoverishment, for the simple reason that the more elective subjects

are thus mechanically added to the bill of fare, each tied up by itself with a final examination and sealed with the inescapable "credit," the more completely do we cut off the essential and vitalizing connections of one body of ideas with another, whether in the same or different fields. No period of history may presuppose or seek to reinforce a knowledge of any other; physics itself may be divided and presented in two isolated chapters; and a study of biology must dispense with an indispensable foregoing chemistry. Even where there is apparent sequence, as in English, or in small schools where offerings are limited, the individual term courses tend nevertheless to be organized and conducted without reference to what precedes or follows; except where it is unavoidable (*e.g.* Latin, French, etc.), such sequence as exists is not essential or utilized. The really significant ideas on which thought depends are thus cropped and clipped until there remain just what the American secondary curriculum is to-day — detached bundles of information, that cannot be digested and retained because they are not properly related. It would be difficult to find a better illustration of Henry Adams' shrewd remark that "nothing in education is so astonishing as the amount of ignorance it accumulates in the form of inert facts."

The only way to remedy the evils just described is to simplify the curriculum and enrich the teacher, which is precisely what the European schools do. In Prussia a briefly sketched plan of general objectives is set up by the government to keep the schools approximately together. Within this loose frame the masters of the individual schools have become in recent years wholly free to formulate the curriculum and choose the material, topic by topic, taking care that the inner cross-connections between subject and subject from point to point are duly brought out. The study of German in the classical *Gymnasium*, for example, emphasizes constantly the influence of classical ideas on German literature and spirit, and in turn the reaction of the German mind in assimilating it. When teachers in other subjects can supplement the instruction, they are freely utilized. Topics common to two subjects, such as literature and history, are carefully assigned, or else divided as to point of view. Thus through unremitting deliberation and frequent conference of a small group of competent masters the whole curriculum represents an intelligent coöperative meshing of instruction, whereby each master is fully aware of what his colleagues are doing, and knows what general resources in the pupil will be available to meet his particular demands.

Within the subject itself, when handled as a unit, the opportunity is used to fix clearly the main ideas by foreshadowing and preparing for them in early years, by developing them in as wide relations as possible, and by fixing and reinforcing them with constant restatement and fresh application. A frame of this sort can hold successfully a wealth of detail that is out of the question when it is supplied merely as information from detached sources to pupils who can be held responsible only for what is in hand at the moment. The first process builds an orderly mental structure that gives permanent satisfaction; the second leads to cramming, confusion, and the effort to escape.

The German course in the mother tongue, for example, is thus set to ensure "a certain mastery of the language and a lively comprehension of the cultural values springing from the language, the literature, the art, and the living forces of the people."[1] Specified are: training in the pure language of the school, which is that of the stage; training in speaking, in reading, in committing to memory, in oral expression, and composition; instruction in grammar and rhetoric; reading and discussion of literature in all of its forms, together with its historical development; mythology, folklore, social life, customs, dress, and other expressions of national character; music, architecture, and graphic arts as products of the national genius; philosophy both as the outgrowth of problems of language and literature and as the highest expression of the national thought; good citizenship on the basis of appreciation of national achievement and pride in it.

In the study of natural science, "the task set for each branch compels the intimate interlocking of them all into a single course in Science. The individual institution must determine the separate ends to be sought . . . but the interrelations of all branches with the entire curriculum will condition the formulation of the course." The main divisions are physics, chemistry, and biology, but they are interwoven throughout, both in time and in cross reference, bringing with them geology, mineralogy, and paleontology, much of the history and philosophy of science, together with its social and economic applications. The purpose is, "without attempting an exhaustive treatment, to bring the various fields into systematic arrangement with one another in order that the pupil may gradually become conscious of the intimate interdependence of all natural processes." It may properly be inferred that such a course is designed primarily to promote careful and accurate thinking. Laboratory work, while always in evidence, recedes before the task of understanding thoroughly the main ideas and their interrelations. Nothing but admiration is expressed for the luxurious laboratory equipment to be found in the United States, but frank observers from England, France, and Germany alike declare that we greatly exaggerate the merely manipulative opportunities in science study and mistake the superficial interest thereby aroused for a real educational result, while we neglect, or ignore, the hard thinking which gives to scientific conceptions their remarkable value in education.

Any one who follows courses like these as they progress, will soon be convinced that the real enrichment and the inner inspiration of both pupil and master spring from a certain intellectual clarity and grandeur inherent in great orderly conceptions, slow of growth, long lived with, and studied and restudied in different lights. Not only do good minds so trained develop power from their habitually lucid dealing with important ideas, but their mental connections are enormously increased, as on a switchboard, giving them access to a multitude of meanings that are concealed from those who deal chiefly with primary facts. This is education.

[1] This and the following quotations are from *Richtlinien für die Lehrpläne der höheren schulen Preussens*, 1925, the official manual of the higher secondary schools.

*2. The Teachers*

If continuity and relationship of ideas constitute the characteristic basis of excellence in German instruction, it is because of the teachers who administer it. Just as such instruction requires and exercises in the pupil a higher form of intellect than the mere rehearsal of information, so it exacts from the teacher a far more difficult and searching performance than that of one who checks off recitations from a textbook, or discharges similar passive duties.

As in the case of the American teacher already cited, the conspicuous fact in the make-up of the German higher secondary instructor is that he is the selected product of the process over which he presides. To understand him it is necessary to understand still more minutely what that process is.

German instruction has been said to be too rigid—too much learning and too little free discussion, independent use of books, and pupil initiative. Although this criticism has been in part well founded, it is often superficial; the real defects are recognized, and are gradually being corrected without disturbing the fundamental advantage that can be secured in no other way. German instruction has placed its main emphasis on building up a body of valuable and accurate ideas in the belief that a capable young mind may more profitably deal with these than with mediocre and inaccurate notions laboriously if not painfully arrived at through what is called "self-discovery." It escapes some critics that with good teachers a maximum of mental activity and stimulus may result from skilful presentation of ideas. The German, seeking to arouse activity to the utmost at just this point, is in great measure successful. The following instructions from the official manual hardly misrepresent present practice:

> "All instruction is fundamentally 'activity-instruction' (*Arbeitsunterricht*). It requires that in choice of materials the teacher shall always consider, not the learning merely, but rather what powers in the pupil—particularly, independence of judgment, of feeling, of imagination and of will—can be developed and heightened. The necessary principle of such instruction is that the class exercises consist in coöperative give-and-take under the leadership of the teacher. The important thing is to give this activity a character that befits both the nature of the pupils and the educative purpose of the school. Its great and serious aim is to bridge the natural gap between the certain acquisition of knowledge, without which higher mental activity is impossible, and the acquisition of the power for independent work, without which mere knowledge is unfruitful."

Whereas in America the textbook is the focus of class attention, and the teacher functions as an aid and witness to its assimilation (a "fellow student," as some of them like to be called, and most of them are), in German classes the teacher completely fills the stage. He presents all new material directly as though it were original with him. He is not expected to lecture. His problem is to lay bare in every pupil a bit of living tissue into which he can graft his new idea, and he does it by questioning that rivets

attention. Notebooks may not obtrude: the pupil must think, understand, and remember. Aside from meagre outlines, there are no textbooks to fall back on; for thirty periods per week (recently reduced for economy from thirty-six) the pupil faces his masters, the first and most important source of his knowledge; and concentration during those hours is intense. Whereas American children "think," both for recitation and examination, in terms of words as they remember their appearance on a page, these boys and girls think in terms of ideas caught from lips, and a direct conversational attention is characteristic; mind-wandering penalizes itself. Part of each hour goes for review and practice, where everything is fair that is from one day to nine years old, and that too not only in the subject concerned but in all others. Here the master stands before a veritable loom of youth, weaving in as many earlier threads from his own and other subjects as will hold the new material with firm texture in a clear design. Home work is reduced; what there is grows out of the class work, and is especially intended to develop imagination, inventiveness, and independent reflection. Be it repeated, examinations do not exist; attention is on the ideas as such, and not on any mode or hope of circumventing them whatsoever. Profitable by-products of examinations, such as the review and organization of material that they presumably necessitate, are secured vigorously day by day. The business of the classroom is normally just that constructive type of thinking, and examinations as we know them would be superfluous.

Out of this process, applied to the curriculum already described, comes a youth who in each subject from beginning to end has been dealing with a growing mental structure as a sculptor deals with a clay figure, and who has been dealt with in the same fashion by his little group of masters — the same teachers with whom he started. After a thorough scrutiny, not primarily as to what he knows but as to whether he is "ripe," he passes to the university, at the age of nineteen. Tell him that he is educated, and he would probably smile, although to some extent he could honestly agree; he does carry with him a comprehensive equipment on which he can consciously rely.

Whether or not the freedom of university life in Europe is too abrupt a change after the close supervision of the school, may be open to discussion. It is, however, often overlooked that the student comes up thoroughly practised in the orderly handling of ideas, and, whether at Cambridge, Lyons, or Halle, is presumably competent to lay out his own curriculum and think his way through to relative mastery of the subjects he proposes to teach. In Prussia the candidate for a teacher's career studies, as a rule, two major subjects and a minor subject, besides philosophy including education. After devoting a minimum of four years of wholly self-regulated study to this task, he is judged by a thesis and comprehensive state examination at the close, exactly as a candidate for law or medicine.

No American university would dream of setting before its students such an intellectual task as this. The fact is that for good minds the extended German practice of hard thinking on well-organized material is a fruitful preparation for intellectual

command; while a large share of the "free" activities in the American schools have no hard thinking behind them, and are too often a wasteful substitute for good teaching. The candidate who is successful in the state examination has the privilege of registering at some one of the secondary schools for two years of practical preparation. With six or eight others he studies, in weekly seminar, the pedagogy of his subjects, school psychology and ethics, school organization and discipline, and whatever else his personal adviser may think he needs. He visits classes and is gradually introduced to instruction, under the constant criticism of the teachers in the school and of his fellow candidates. His practical examination takes place at the end of the second year; if successful, he is placed on a waiting list. This occurs normally at the age of 26 or 27; present conditions in Prussia have brought the age of actual appointment to well over 35.

Thus the instructor in these secondary schools acquires a thoroughly trained mind; he is a scholar, and he is well versed in the technic of his profession. The tendency of the last twenty-five years has been to recognize his initiative, to give him great freedom in the classroom, and to make him fully responsible for the interior organization of the curriculum in his institution. In contrast to French practice, though he has the initial training of the university professor, he rarely becomes one. His pedagogical preparation, lacking in France, commits him to the specific problems of his profession. The university professor is to discover and formulate knowledge; the secondary school teacher is to keep abreast of it and assimilate it to the needs of those who in their turn will discover, use, or pass it on. He is not intended to be the purveyor of useful information to the democracy, but the guide and adviser of those whose capacities justify society in qualifying them to spend their lives in intellectual pursuits.

### 3. *Differentiation of Ability*

Clearly, secondary education in Prussia rests on a philosophy quite different from that which sustains it in the United States. The situation in France and England is similar, as will appear later. These countries believe in a school as good as it can be made for the scientific training of such minds as can profit by it — minds that give promise of making large return in their contributions to the common welfare. This is the doctrine of the intellectual *élite* or "chosen" bearers of scholarship and learning — a doctrine that represents the typical and traditional European approach to the problem of education.

To American observers this is but a part, and by no means the all-important part, of the whole problem. Before inferences helpful to us can be drawn, we must know how a differentiated system of this sort relates itself to the population as a whole. We refer again to Prussia, where statistics give precise information, while in France such data are not available, and in England do not exist. In the United States, second-

ary school attendance can be given with such accuracy as the figures of the United States Bureau of Education permit.

In 1922, the pupils attending public and private higher secondary schools in Prussia, in the four grades corresponding to the ages 15 to 18 inclusive, numbered 5.4 per cent of the boys and 3.4 per cent of the girls in that age-group of the population, as compared with 32.6 per cent of the boys and 37.4 per cent of the girls in the case of pupils in public and private four-year secondary schools in the United States.

Pupils registered in the first year of American secondary schools constituted, boys 53 per cent, girls 57 per cent, of the fifteen year census age-group to which that year roughly corresponds. In Prussia the proportion in the higher secondary schools at this point was, boys 8.1 per cent, girls 4.9 per cent, though many of this age were doubtless in the middle schools.

In the United States the normal age for graduation from high school is eighteen, and in 1922 the graduates from secondary schools constituted 14.9 per cent of the eighteen-year-old boys and 20 per cent of the eighteen-year-old girls. If we reduce the attendance in Prussian higher schools at the corresponding point by 11 per cent, which is about the amount of loss in the final examination of the following year, it appears that those qualified for promotion numbered 2.5 per cent of the eighteen-year-old boys and ½ per cent of the eighteen-year-old girls.[1] Such a wide discrepancy in attendance suggests at once the intensive and the selective character of the European training.

As for the remainder, it appears that more than 92 per cent[2] of all children in Prussia attend only the elementary school until they are fourteen years of age. According to the new republican constitution, trade or continuation schools are then compulsory until the age of eighteen. Laws giving this provision binding force have not yet been set up, largely because of the great expense involved. But even on the present voluntary basis, about 27 per cent of the eligible youth from 14 to 18 years of age were attending such schools in 1921[3]—usually day schools in session nine hours per week for forty weeks in the year. The absentees were chiefly girls and those employed temporarily in minor positions or in agriculture. Of the regular apprentices in industry, 60 per cent were going to school; and of those in commerce, 70 per cent.

Between the higher secondary schools and the continuation schools lies a parallel group of "middle schools," inaugurated in 1872. Because they carried no military privileges, these were not popular before the war. Since 1918, however, they have rapidly increased both in size and number; in 1922 they had 316,000 pupils as compared with 467,000 in the higher schools of all types. In March, 1925, thirteen of

[1] The proportions quoted in this passage are based, for Prussia on the census of 1919, and for the United States on the census of 1920. Technically we have, of course, no means of knowing what precise proportion of the population of any given age were in school or graduated, since the school figures include many above and below that age. With a negligible error, however, which may be assumed to be constant for all countries, every pupil who is above or below the characteristic age for that grade is counterbalanced by a pupil of the same age who is in a higher or a lower grade. Colored youth in the United States were omitted from the calculations.

[2] *Preussisches Bildungswesen*, Boelitz, 1924, p. 38.

[3] *Das Preussische Schulwesen*, Keller-Menzel, 1925, p. 111.

these institutions were approved in one city alone (Magdeburg). They usually have a six-year course above the four-year *Grundschule*, and carry the pupil to the age of sixteen. Many of them are private, and prepare for the higher schools; the majority of the pupils are girls; the teachers come both from the normal schools and the university; the tuition fee is one-half that at the higher schools. The real function of this school in the future appears to consist in giving a practical education, with one or two foreign languages, to such pupils as, in their early years, show special ability, but do not seek to become scholars. Many, for example, who formerly filled the lower classes of the higher schools because of military privileges thus obtainable, will hereafter attend the middle schools.

The threefold differentiation in Prussian secondary education is thus before us: *First.* A good, fundamental schooling up to 14 years of age in the *Volksschule* for all those not withdrawn for the special schools mentioned below. Thereafter a four-year vocational, civic, and mother-tongue training interwoven with a wage-earning occupation. *Second.* A special school, the *Mittelschule*, from ages 10 to 16 for pupils of good ability, with a product fairly comparable to that of the American high school. Thereafter follow the business, trade, and technical schools. *Third.* The *Höhere Schule* (including *Gymnasium*, etc.), from ages 10 to 19 for pupils of superior ability—an institution that has no counterpart in the United States. It prepares for the university and for the teacher-training institutes which it is proposed to establish.

### 4. *Effect of the German Revolution*

In outline this has been the Prussian system for the past fifty years; in its spirit and management, however, it is a novelty dating from the German Revolution, and possesses a significance that can scarcely be compressed within a descriptive paragraph.

The Conference of 1920, in which, after war and revolution, Germany took stock of her educational situation, was dominated by one idea, the so-called *Einheitsschule* or unitary school plan, a notion long fostered by socialist reformers and powerfully supported in their minds by the fact that the United States was supposed to be giving, in a single progressive series of institutions, the same education for all. When this glamorous idea was actually confronted with a school system that had sought, though not without injustice to some, to educate its most capable minds in surpassing fashion, proponents of the new plan themselves discerned the truth: the defect of the old was not that an exacting scientific education was at the disposal of a few who could earn it, but that access to that education rested on inequitable economic advantage and was inflexible.

The reorganization resulting from this conference, both in Prussia and elsewhere, modestly announces a scheme of education that in pure fitness for the best interests of a democratic people leaves little to be added. It sets forth a well-differentiated

system of secondary instruction based solely on a skilfully determined capacity to profit by the things that schools can teach, without regard to social or economic considerations. Certain English cities had earlier inaugurated precisely such a principle, even supplementing free tuition with parental subsidies; and recent legislation shows that it is the policy which the British central authority has definitely in view.

Actually to develop a school system on this basis in a period of great political and economic uncertainty such as now prevails in Prussia will require both patience and courage. The steps already taken are noteworthy: *First.* The old preparatory classes of the higher schools patronized by the well-to-do families have been abolished; the common school now receives all children for the first four years, and private schools are discouraged. *Second.* At the age of ten, and in exceptional cases a year earlier, all promising pupils both in the common and private schools are examined for admission to middle and higher schools. If successful, their tuition charge is scaled to the income of the parent or remitted entirely. Some communities add free textbooks, transportation, dental services, etc. The tendency everywhere is to increase these opportunities for good pupils as conditions improve. *Third.* A new type of higher secondary curriculum has been organized coördinate with three others, but focused chiefly on a thorough treatment of modern civilization in Germany, with the addition of one or two modern foreign languages. *Fourth.* Certain higher secondary schools of all types, but particularly the last mentioned, are organizing classes to receive pupils entering at the age of thirteen from the common schools. Thus pupils late in maturing or located at a distance can still enjoy such training if they are fit for it. *Fifth.* The old normal schools have been abolished. Hereafter teachers in common and higher schools will receive an equivalent basic training preparing for the university, the former presumably in the new type of higher school mentioned above. Special technical preparation for their profession will be provided for common school teachers, probably in "academies" at the general university level.

Whether or not Prussia can ever give full and sincere effect to her new democratic theory of education, the proposal is one of profound significance to a commonwealth like our own. That feature of it which, for social and historical reasons, is least comprehended in Prussia finds immediate approval with every intelligent American democratic government should ensure each individual the opportunity of making most of himself up to the limit of his capacity and without economic handicap beyond his control. Furthermore, the American has to-day what Europe sadly lacks; namely ample resources wherewith to put the principle into practice. On the other hand, those features of the program that are taken fully for granted, and are as clear as day to the Prussian, are those to which the eyes of the American must as yet be opened: education is a substantial and not a sentimental process; its higher opportunities are for those, and for those only, who have the intellectual initiative and the intellectual vitality to educate themselves; for such as these the best that can be had is well worth whatever it may cost the community to provide it.

### B. Secondary Education in England

England differs from Prussia in almost every superficial particular of educational procedure, but agrees with it in the essential features of its educational philosophy.

Secondary education, as understood by us, rests in England on two main pillars. There is first a group of endowed schools, among which may be reckoned a few supported by ancient companies or by religious denominations. Among the endowed schools are many venerable foundations that have endured for centuries, often antedating the Reformation, and that as "Grammar Schools" or "Public Schools" have until very recently constituted the backbone of English adolescent education. Each of these schools is outwardly a law unto itself, yet collectively they are the bearers of a common tradition that through the refining process of generations has come to represent the typically English ideal of education, an ideal that probably was never more powerful than it is to-day. A spirited sense of honor and loyalty, physical fitness, and the manners of a gentleman are the accepted ingredients of this ideal; scholarship is not often mentioned. Nevertheless, scholars do emerge, if not in great numbers; until within a dozen years these schools carried off 90 per cent of the open scholarship prizes at the older universities. Perhaps a hundred such institutions are of reasonably high grade.

The second group of schools consists of somewhat more than a thousand institutions for which the national Board of Education is sponsor through its assignment of annual subsidies. Of these about 300 have courses for pupils over 16 years of age.

This aided-school movement had its inception with the reorganization of the English Board of Education so recently as 1900. It is the result of the efforts of half a century to create a national system of schools that would coördinate and simplify a chaos of voluntary undertakings. Although the poorer endowed institutions also receive aid from the Board, the majority of its schools are tax-supported local day schools that provide well-supervised secondary school facilities for boys and girls to whom the expensive endowed schools are not accessible. They charge tuition, but a considerable proportion of their entering pupils (40 per cent at present, recently increased from 25 per cent) are transferred from the elementary schools on free scholarships as the result of examination at the age of eleven. Since these "free-place" pupils are better selected than the others, they stay longer in school; hence they often constitute one-half or more of the total attendance. The pupil material is thus of high grade, and the rapid invasion by these pupils of the prize lists at the universities has been a leading factor in stimulating reform in both curriculum and staff of the old endowed institutions. Such, however, is the prestige of the endowed schools that much of their organization and nomenclature has been copied outright by the newer schools: thus the division of the school by "houses" (though none exist at these day schools), the prefect system, game programs, even the "tuck-shops," all help to give the "day-boy" a sense of his heritage in an ancient tradition, and tend more and more to draw

together in one strong system two elements originally, and even to-day, rather widely sundered in respect of financial status and social connections.

1. *Size of the Schools*

As in Prussia, the secondary schools in England are invariably small. It would seem to English masters a contradiction in terms for a teacher to profess to educate who was physically unable to reach the boy or girl in order to apply the process. The average attendance at the old endowed institutions is from 600 to 800, with a customary age ranging from 13 to 19 years; Eton, the largest school, numbered about 1100 in 1925. The 1143 schools aided by the Board of Education in 1924 averaged 267 pupils ranging from 10 to 18 years of age; the larger schools in this group had about 700 pupils. Manchester Grammar School with 1200 pupils was exceptional. Such numbers admit of informal family relationships between masters and pupils of a high educational quality, and the pupil of ability has both every opportunity and every inducement to develop himself to his full capacity. Moreover, five hundred pupils thus distributed constitute a body corporate that holds well together, and draws each member into active relations with its main purposes to an extent that is not usually achieved where thousands are concerned and many may be untouched by any corporate responsibility whatever.

2. *The Curriculum*

The curriculum in the schools aided by the Board may be taken as representative of matured English judgment as to what should be the substance of a secondary education. These institutions are mostly new and flexible, they are unhampered by tradition, and their development has enlisted the best thought of the nation.

The program of studies falls into two parts, the second of which, the two years from 16 to 18, is as yet a sort of common zone, cared for both by the universities and by the larger schools. Both parts are, however, controlled and determined almost exclusively by university requirements. The first or "school leaving" examination at 16 is the old matriculation examination, and the second at 18 is the old "intermediate" examination of higher education. Both are given solely by outside university authorities, and mark the schooling as definitely "preparatory" in its nature. From ages 12 to 16, nevertheless, the curriculum is in theory a group of general studies intended to provide a liberal training regardless of subsequent careers. English, history and geography, mathematics, science, and foreign languages continue unbroken throughout this period with no variations within the individual school except as to the languages or sciences taken. As a vocational concession, certain commercial subjects are approved in some schools at the ages 15 and 16, but they are not permitted to occupy more than one-fifth of the whole time. Agriculture and domestic science find similar treatment where they seem appropriate.

The noteworthy feature of this program of studies is the principle of sequence and continuity on which it rests. Although details vary from school to school, in any given institution one finds a general course required of all, and on the tendencies shown in its performance rests the choice of subjects for the two succeeding years. As in the German program, each year's instruction grows out of that of the year preceding, and gradually forms with it a permanent structure of clear and significant ideas that are related to one another, and that convey the lesson and example of deliberate, well-articulated thought. The coherence of subject with subject is marked. Latin, if taken, carries Roman history with it; botany may count upon an antecedent chemistry with which to explain the physiology of plants; optics, as a section of physics, is deferred until geometry has made the pupil familiar with the properties of triangles. It is easy to bring about such interrelations because the schools are small, and the masters are intimately associated. It would of course be out of the question without a fixed curriculum.

At the age of 16 the pupil chooses as to the bulk of his time between certain divergent groups of studies. These are usually either classics, or science and mathematics, or modern languages and history, each with one or two minor subjects selected from fields not so chosen. For two years he does intensive university preparatory work, and finally takes an examination that determines his fate as to the scholarships on which, in the case of pupils in the aided schools, his future career usually depends.

In the university the student will almost invariably devote his three years for the B.A. degree to the further mastery of this field of specialization already chosen. His scholastic career from his twelfth year on presents, therefore, a four-year general course for liberal culture, followed by a two-year period of semi-specialization, and brought finally to a focus in a three-year period of complete concentration on a relatively limited, though even then not a narrow field of knowledge. Such a course of training has the merits of consistency and of the utmost economy of mental energy; in the case of students receiving upper class honors it results in a thorough and confident scholarship. The American should note first that specialization of this type deals with a much more liberal group of related subjects than the term usually implies with us, and should, second, compare attentively the state of mind in which the American college graduate may conclude the mixture of elementary studies that he calls his curriculum.

Men and women so trained go back into the schools as teachers. Although a teacher's preparation is standardized in no such manner as prevails in Germany and France, and strictly pedagogical training is rare and of uncertain effect, the stipulations of the Board of Education ensure that secondary teachers be genuine scholars in their respective fields.

*3. Differentiation of Ability*

Differentiation in the instruction of pupils on the basis of intellectual ability assumes in England an importance apparent nowhere else in Europe, although its beginnings in Germany have already been pointed out. The matter has a two-fold aspect: first, as applied within the schools, and second, as affecting the general provisions for secondary instruction.

One has the impression that, scholastically, the English are a much "examined" folk. Admission to an institution or rank or privilege of any sort by "certificate," as understood in this country, does not exist, except it be a certificate earned in some sort of examination. A special feature of this situation inheres in the fact that instead of placing secondary and higher instruction upon a gratuitous basis as in America, England has retained the system of fees and has greatly extended the practice of giving scholarships for merit. Thus examination becomes for very many not only the basis of admission, but the indispensable means to academic survival.

The result of this examination tradition is that intellectual activities everywhere in England are carried on with an attitude and in an atmosphere of open competition that makes them nearly as objective as are athletic sports and games. A pupil expects to have his intellectual measure taken as frankly and definitely as his weight or his skill in cricket, and sentimentalism in the matter finds scant foothold.

The operation of this principle within the school — within even these small schools having a relatively select attendance — may be illustrated by the organization of a typical London institution — Westminster City School. New boys entering at the age of 11 are distributed promiscuously among three divisions, while a fourth contains those who have taken the preparatory classes of the school itself. All begin French at this point. After one year these four groups are completely reshuffled on the basis of their achievement. The best group begins Latin, the next two add German to French, and the lowest takes extra French and English. Otherwise the subjects are identical as indicated above, but the treatment varies according to the ability of the class. After two years, at the age of 14, the four divisions are once more reorganized into three, again on the basis of achievement, except in the language courses, where the original four divisions are retained. The lowest of the three new divisions comprises those who probably will not take the leaving examination at 16. Those in the next will take the examination, but usually will not proceed to another institution. The top form will be examined at 16 and will then be divided between the advanced two-year scientific and modern courses to prepare for the university or other higher institutions.

In comparison with this discriminating procedure, which is fairly representative of the majority of English schools, the American high school with its repetition of divisions, all at one commonplace level, seems to lack definite purpose. One fears that our tendency to blanket intellectual differences under the same general formula is

costing us dearly. We seem to be throwing away the one great opportunity of enforcing with young minds a clear feeling for the reality of intellectual accomplishment and for a sense of ultimate thoroughness that comes only when a mind is encouraged to test its limits. It is probable that the chief lesson we have to draw from England is on the appropriate proving and recognition of true capacity ; this is surely not an un-American trait in certain other distinctive aspects of our national life, and cannot long be omitted from our education.

The external differentiation of the new secondary instruction in England likewise merits careful consideration, less because of what it has thus far achieved than because of the apparent soundness of the principles now being applied, and the promise of an eventful structure that will not have to be rebuilt.

The proportion of persons 15 to 18 years of age who are enjoying full-time educational advantages in England is probably very small. The odd lack of trustworthy school statistics compels one to resort to the census reports for 1921. These place the proportion at 6.9 per cent for males and 7.5 per cent for females. Adding the proportion reported as doing part-time work, these figures are increased to 8.5 per cent and 8.8 per cent, and may be compared with the United States returns from a similar source which are 43.8 per cent and 46.9 per cent respectively for school attendance of any sort. Of fifteen-year-old boys and girls 14 per cent attended a school of some sort in England as compared with 74 per cent in the United States.

But the above figures do not represent the final British verdict on the treatment of adolescents. The ideal which has animated the national Board of Education since secondary training was provided for in 1902 has been to open the way for each child to that form of education which is suited to his capacity. In the words of the Education Act of 1918, "adequate provision shall be made in order to secure that children and young persons shall not be debarred from receiving the benefits of any form of education by which they are capable of profiting through inability to pay fees." For a war-weakened people the realization of such an inherently expensive policy is necessarily slow, but the manner in which it is being undertaken in practice is significant. It may perhaps be best understood by a brief description of the procedure, say, in London, where the terms of the problem are largest. It may be added also that education in London is fully typical of the best English practice, and is not, as in our largest cities, at the mercy of politics.

In addition to its secondary schools the county of London, like many other English communities, has developed during the past fifteen years a new type of school known as the central school. The institution originated in the "higher elementary schools" that grew up after 1871 before secondary schooling at public expense was authorized. The upper classes of such schools became "central" classes, drawing pupils from several elementary schools, and were eventually given an independent organization. Central schools admit at the age of eleven, and have a four-year curriculum, of which the three upper years divide into an industrial, a commercial, and

sometimes a general branch of studies. One foreign language is taught. The teachers are especially selected, usually from the elementary staff, and the total cost per pupil is about one-half that of the secondary schools.

For the pupil who does not attend the central schools numerous trade schools and institutes are available at the school-leaving age. A few voluntary day continuation schools have been opened in partial fulfilment of the Fisher program of 1918, and a certain number of pupils remain in the elementary schools after the age of compulsory attendance has been passed.

With the facilities thus broadly described London proceeds as follows: About 74,000 children in the elementary school annually reach the age of 11. On the basis of a general examination in arithmetic and English, and with the coöperative judgment of teachers and principals, these pupils are arranged as nearly as possible in the order of merit. The 1500 nearest the top are then provided with scholarships in the secondary schools of their choice, and in case of need maintenance allowances are granted to the family up to a value of about $100. Doing well here, the boy or girl of 16 readily secures an intermediate scholarship with a higher maintenance allowance, and at 18 is in line for a large number of university, technical, art, or professional scholarships with maintenance up to $950 as required.

While competitive in a sense, the number of these scholarships is never definitely fixed, and it is necessary rather to qualify than to compete for them.

After the ablest pupils have thus been removed to the secondary schools, a further draft is made numbering about 5000 for appointment to the central schools. Here also maintenance grants are given, and, as in the secondary school, a promise is exacted from the parent that the pupil will be kept at school and thus allowed to profit by the full course. At the age of 13 this age-group in the elementary school is carefully studied again for able pupils who may have been overlooked or who have matured late, and such cases are transferred to the higher schools.

The total selection of pupils so made constitutes less than 10 per cent of the age-group involved. There is nothing arbitrary in this proportion; it represents but the beginning of London's provision for an education, the minimum terms of which were courageously faced in the Fisher bill. In Manchester, where a similar differentiation is well developed, it is hoped that ten years' growth will find 20 per cent of a given age in secondary schools, 40 per cent in central schools, and the remaining 40 per cent well looked after in day continuation schools closely affiliated with industry.

The principle underlying this whole procedure deserves to be thoughtfully noted. One may feel that an old, conservative, highly stratified society has moved with desperate slowness in making genuine education available to its "masses" and still find that the method pursued is in itself sound and admirable. Not even with ample funds for any program would the most enthusiastic English students of the problem copy the American method and attempt to crowd all boys and girls through the same mediocre and, for many, purely formal process simply to realize a certain conception

of democracy. However explicable for America, they see, just as the Germans see, that such a course sacrifices for an empty formula the substance of true education, namely to place before every individual the opportunities best suited to that individual's capacities, and then to clear the road of obstacles for the mind that will work.

### C. Secondary Education in France

Although in school organization Germany and France are superficially akin, the racial and temperamental background of secondary education in France differs widely from that which prevails in either Germany or England. Some of these differences illuminate the American problem considerably, but can hardly be discussed within the limits of this report. In those features of educational procedure that have been selected for emphasis here the practice in France is plainly defined, and agrees wholly with that of her neighbors. A brief description will make this clear.

#### 1. *Size of the Schools*

The boys *lycées* in Paris and in the larger cities of France average about 1000 pupils each, while those elsewhere have less than half that number. The normal age range of these pupils covers eleven years, so that possibly half of them would constitute an administrative unit comparable with our four-year high schools. The *collège*, while in some respects inferior to the *lycée*, is of coördinate rank; it is found usually in the smaller towns, and is locally supported under state supervision. Its average attendance is less than 200 pupils, distributed as in the *lycée*.

Thus secondary education in France is kept physically manageable—a fact which is perhaps somewhat surprising inasmuch as French secondary schooling is a system of highly developed instruction, rather than education in the English or American sense. Its cardinal features are first a lucid and interesting exposition of material by a group of accomplished scholar-specialists; and, second, an assimilation on the part of the pupil secured through an enormous amount of painstaking written work and memorization with great emphasis on precision of thought, refinement of detail, and delicacy of discrimination. There is scarcely a trace of that stimulating classroom interchange between masters and pupils which is consciously fostered and considered indispensable in German, English, and American schools. Such a system could conceivably be extended indefinitely by the multiplication of its units without seriously endangering its results, yet such has not been the course of its development.

#### 2. *The Curriculum*

In a completely centralized school system like the French, the curriculum is the frame and pattern of the whole enterprise and is put together by the central authority with infinite care and deliberation. Options exist, such as permit emphasis on ancient or on modern languages, on a Latin or on a scientific training; but such fundamental

choices once determined, the curriculum is built up in a consistent and balanced fashion for purposes that the French hold precious—a mind thoroughly disciplined, broadly informed, and finely sensitive to intellectual distinctions. The quality of the product is the sole consideration, and ruthless elimination in the final tests encounters no sentimental obstacles.

Aside from its careful architecture, special devices bind certain parts of the curriculum still more closely together. Instruction in Greek, Latin, and the mother tongue is regularly given to one group of pupils by the same person; history and geography are likewise assigned to one instructor. In the elementary sciences and in modern foreign languages, as well as in the minor subjects of a given curriculum, the master is likely to follow his pupils through more than one grade. The internal unity and continuity of the instruction is thus considerably enhanced by continued interchange of reference where information is dealt with, not as a temporary asset to be bartered for so much credit, but as the raw material in a progressive building of ideas.

*3. The Teachers*

The unrivaled crown and glory of French education at any stage is to be found in its body of secondary instructors. No country in the world can show so powerful and so highly selected a group of scholars dedicated to a great public service. The reason for this is simple; in some respects almost cruel. Those who, at 18 years of age, have completed the secondary curriculum, must then usually spend from five to seven years in severe study at the university in order to have even a chance of success in the *concours de l'agrégation* whereby the secondary masters are chosen. Success means government support for life in a position of marked distinction and prestige as *professeur* in a *lycée*. Failure means at best a repetition of the attempt and perhaps the far less desirable appointment to a *collège*. From a large throng of candidates, including many repeaters from past years, an annual series of oral and written tests brings to the top those who possess the indubitable genius of French scholarship and the power of presenting material in a skilful, even artistic, manner. Of these only so many are chosen as suffice to fill the very limited number of places vacant at the moment, usually less than ten per cent of the candidates; all others must try again.

Under such instructors pass the youth of the *lycées* from their eleventh to their eighteenth years. Caring little for "pedagogy" and therefore largely indifferent to the psychology of their pupils in the learning process, they do nevertheless serve constantly as brilliant examples of intellectual force and refinement. For pupils with minds awake and a disposition to work this is an incomparable advantage and opportunity. Even for the less gifted it is impossible in the daily presence of such men to have other than profound respect for the intellectual interests that they represent—a respect that becomes a lifelong attitude toward fine things of the mind. Nowhere in the *lycées* does trivial and absurd "instruction" turn education into a sickly joke, and beget in the pupil permanent scorn. If the French *agrégés* would as frankly rec-

ognize and deal with their problems of technique as they have with those of knowledge, they would be not only great scholars but the finest teachers in the world.

The *lycées*, though half as numerous as the *collèges*, teach twice the number of pupils; their influence in the secondary field is therefore preponderant and serves as a standard and tonic throughout the entire system.

4. *Differentiation of Ability*

Within the French secondary schools themselves selection or classification on the basis of ability is not conspicuous. There is no examination for admission, and owing to peculiar conditions the tests for promotion from year to year are extremely, indeed notoriously, lenient. The authorities prefer to stake everything on the examination for the *baccalauréat* at the end of the course. This deadening procedure constitutes the chief academic grievance of the instructors, and apparently with reason.

Competitive scholarships, though few in number—perhaps six per cent of the total—form as in England an admirable and stimulating factor in the system. A pupil who can prove his merit may rise from school to school at state expense. The program of the French Ministry of Education contemplates a large increase in facilities of this nature.

In the provision made for more than one type of training above the elementary school France corresponds closely to the nations already cited. The counterpart of the *Mittelschule* in Germany and of the central school in England is the *école primaire supérieure*, which is the nearest approach to the American high school to be found in the French system. In the provinces this is normally a three or four-year institution, admitting at the age of 13 to an identical first year and then usually dividing into three vocational groups: one industrial, one commercial, and one preparatory for the normal school. In Paris these schools are of a quality but little inferior to the *lycées* themselves. There are many *agrégés* among the instructors, and they successfully prepare large numbers for the same school-leaving examinations. Even outside of Paris there is a tendency to extend the course by adding two or three years of work for small classes in preparation for higher schools. The initial selection of pupils from the elementary school by special examination[1] gives a grade of mind that compares favorably with that in *lycée* and *collège* where the selection is, without examination, by wealth and family tradition. Moreover, its teachers are selected elementary school teachers with special preparation, and in technique admittedly outclass the secondary school instructors. The schools being free are becoming increasingly popular, in some cases at the expense of the *lycées* above them. In 1923 they enrolled 73,000 pupils, or about two-fifths as many as attended the *lycées* and *collèges*.

The development of continuation and vocational schools in France is under way, but the facilities are as yet limited.

[1] Theoretically, these schools require no examination for admission. In fact, because of limited facilities, an examination is always required in Paris and usually in the provinces.

## III. SALIENT DIFFERENCES BETWEEN AMERICAN AND EUROPEAN PROCEDURE

The principles underlying European school procedure with which we have been concerned in the foregoing discussion may be summarized under two heads: Differentiation of minds according to their ability; The curriculum to which these minds are subjected. With the clear defects of European education from the American point of view—and they are many—we are not here concerned.

### A. Differentiation of Ability

Alike in Germany, England, or France European practice in secondary education is pivoted on the conception that there must be one type of school representative of the best that is known in respect to curriculum, instruction, and general discipline. This notion is derived, as has been noted, from the long-standing conviction that the greatest duty and glory of one generation with reference to the next is to advance and refine its spiritual possessions. Standing at the head of the educational system, such a school not only provides facilities whereby active minds may reach their full development, but also shapes the perspective of the entire people. It insists as a standard, not on the average or medium, but on the best practice that can be set forth. A nation accustomed to a scale of values in which the best is thus frankly sought and acknowledged may still have to deal largely in the commonplace, but it will never mistake mediocrity for a god nor turn its own crudeness into a cult.

In addition to the institution that embodies for each of these three peoples an ideal of instruction preparatory to its finest intellectual opportunities, there has gradually developed a more practical training, balanced in each case by important liberal elements. In the *Mittelschule* of Germany, or the central school of England, or the *école primaire supérieure* of France, a vast number to whom both content and method of the severer discipline is unattractive or unattainable will eventually find opportunities suited to their ideals and stimulating to their ambitions. Beyond these, in turn, there will certainly be, for many years, a body of youth to whom any serious intellectual exercise, as at present organized, is difficult or repugnant, to whom the conformity and routine of the daily wage-earning employment are alike a comfort and a protection. For these the European nations have devised, in varying degree, advanced courses, or continuation schools, for the purpose of holding the pupil, while at work, in close touch with a helpful and steadying mental control until transition to full maturity shall have been accomplished.

The mere differentiation above described is less significant than the fact that it is everywhere gradually being placed upon a merit basis. Wealth and social prestige have dominated these opportunities until the recent past. To-day in Germany and England this is no longer the case. In France the *école primaire supérieure* selects its pupils by examination, and the same principle is discussed for the *lycée*. The example of America has not been without its effect in inducing Europe to let brains from

all classes go to the top. Yet although American high schools vary widely in details and quality, the usual practice is to give free access to a nondescript, unorganized mass of courses at a single level and that a low one. Europe prefers to offer carefully organized groups of curricula suited expressly to at least three varying types of ability; to the most expensive of these it attaches a fee, but proposes to select its pupils on the basis of indicated promise and proved achievement, and in the case of England particularly, stands behind such selections when necessary not only with tuition, but with full support continued throughout the highest schools.

Finally, it is obvious even from the inexact statistics available, that numerically Europe has moved far more slowly than the United States in attempting to provide formal training for its adolescents. This has been due in part, of course, to the inertia of an older, more stable and conservative society; and in part surely to the deadly weight of material loss and spiritual depression that have made it impossible to take advantage of the social release and revaluations brought about by the war. Another factor, however, has been continually present, namely, the habit of mind which considers education to be a thoroughgoing process that actually does something to the pupil in exchange for sincere effort, and that consequently regards it as incapable of extension except as satisfactory conditions affecting pupil, teacher, and curriculum can be set up. This is the feeling that is behind the remark of one of the severest yet most enthusiastic critics of English secondary education. After quoting American statistics, he observes: "All will agree that our ideal for the time being, at least, must rather be Germany than America, the levelling up of the standard of existing schools rather than the spread of new institutions, to give a thorough education to the boys we have rather than a pretentious smattering to twice their number."[1]

In contrast with the European perspective wherein all education receives its tone from the habitual focus on excellence at the top, secondary education in the United States is to-day pivoted unmistakably at a point about midway toward the bottom. The cult of the *average* determines not only the spread but also the quality of our education. Our ideals exhaust themselves freely in the brick, mortar, and equipment of our school buildings, but are not permitted effectually to invade educational processes or to modify their product. Indeed, the attention that the European has lavished upon his most gifted pupils we have largely focused at the other end in endeavoring to bestow the blessings of the average on the feeble-minded.

In America the high school was originally dominated by the college, as is the case in England to-day. Definitely required curricula with a considerable choice of subjects—"classical," "Latin-scientific," "scientific," "English,"—once reigned and college entrance examinations formed the natural conclusion of a more or less consecutive and coherent course of study. The duller pupils gravitated to the "English" course, while the ablest took Latin and Greek.

From an institution for a selected 5 per cent or 10 per cent of the population, our

[1] Norwood and Hope, *Higher Education of Boys in England*, 1909, p. 67.

high school has expanded to admit variously 50 per cent, 80 per cent, or even 100 per cent of the fifteen-year-old youth. The urgent invitation of an eager and ambitious people has here and there been translated into legislation practically making the earlier high school years compulsory.

The prevailing principle at work throughout this expansion has been a certain popular interpretation of democracy: "The same courses and teachers for all, and for each pupil a chance to get what he can." Instead of requiring before admission that a pupil be fitted to profit by a given course of instruction, kept as nearly as possible at a fixed standard of excellence, it has been the practice to admit an unfit pupil and "let him try," regardless of the fact that thereby the actual standard of the course has steadily been lowered to a level of mediocrity that will "pass" all but the notably indifferent or defective.

Being thus under the bane of the average, we have invented a pedagogy to suit. Not only have earlier notions of formal transfer of discipline acquired in the study of the grammars of ancient languages been discarded; the obvious mental discipline and tonic of profitable consecutive thinking in any subject, no matter how "useful," has been sacrificed. The average pupil could not be held to strenuous intellectual effort, and our attention has been concentrated on making education *interesting* to the *average* pupil. Instruction in English has been reduced to a struggle with bad spelling and grammar together with a glimpse at such literature as will make immediate appeal to minds largely or wholly without literary background. The French boy after a painstaking study of difficult models prepares a carefully planned composition on Molière; the American child at the same point, as the alleged beneficiary of the newer psychology but really as the victim of the "average pupil," is asked to tell informally what he saw on his way to school. Then we are puzzled as to why the French lad of ability comes through with a love and fine feeling for his national literature while the American, whether able or not, is still concerned only with the passing show. Modern language teachers are far from exacting the accurate, painstaking performance that characterized the earlier instruction in Latin and Greek which theirs displaced. Mathematics has become voluntary to a great extent; "originals" wholly so. In spite of the introduction of a great amount of new material and remarkable theoretical development, science instruction has nevertheless become more and more "popular," descriptive and applied; formulas and basic concepts requiring clear definition are accepted ready made because they cannot be handled otherwise except by capable minds; manipulative procedure in laboratories intended to illustrate or to furnish the basis for inductive thinking has supplied an "interesting" and tangible substitute for a decreasing body of clearly reasoned concepts; selections of scientific applications such as the "chemistry of the household arts," "the physics of automobile construction," bear further witness to the impossibility of dealing with the average pupil in high school to-day in terms of fundamentals that compel thought. Any teacher or principal can make clear to himself what has happened by fancying

for a moment how he would reorganize his material if he had only the top ten or fifteen per cent of the present school population to deal with.

But the demands of the situation have far outrun our success in softening the old subjects to accommodate the incoming flood of pupils. A wholly nondescript crop of "electives" has appeared that may usually be taken anywhere, in any order, for full credit in amassing the necessary number of " points " required to graduate. Thus one school of high standing requires the pupil in the junior year to study English, and directs him to choose any three subjects from the following: Latin, German, French, Spanish, physics, medieval and modern history, art, band, manual training, music, printing, stenography and typewriting, and home economics. The senior year brings political economy, chemistry, physiology and botany, journalism, and Red Cross, to swell the list from which he again makes free choice. A four-year random sampling through these lists and a low pass mark in examinations that cover in each case solely the few weeks' work in that subject for that term bring any youth to graduation on a par with the best. It must indeed be a sad specimen that cannot be accommodated on these conditions.

Of the old college entrance examinations little remains except for a small group of private institutions accounting for from five to ten per cent of the annual collegiate admissions. The high school pleaded better knowledge than the college of what education is most appropriate to adolescence — a claim that should have been true; thus far, however, it has paltered with its curriculum always on the line of least resistance, and has refused to substitute for the external examination any decent internal guarantee that its graduates were of a mind and had capacity really to profit by a college education. With a very few significant exceptions the state university to-day stands open "on certificate" to youth prepared as above described, trusting to eliminate large numbers of them as soon as possible, but actually being choked in the process.

The breakdown of the high school in its attempt to educate the whole people has been due to failure to keep clearly in mind wherein genuine education consists. The gradual but far-reaching changes just described have been necessary and desirable for some but not for all. We have been unwilling to admit that the old organization is unsuited to cope with its new task. Instead has come the inevitable attempt to justify ineffective procedure on social grounds: it is discovered that after all the intellectual aspect is unimportant, the real object is in some way to make good citizens by means of a great variety of extra-curricular activities that shall interest the youth and keep him happy. Education thus becomes anything that a pupil does in school in this mood and therewith reaches its nadir of abject sentimentalism.

### B. The Curriculum and its Application

Having brought together a presumably fit and homogeneous body of pupils, the European organizes them compactly into small groups for an eventful journey together

through the most profitable experiences of which they are capable. They are placed in charge of really accomplished scholars who will see them through from beginning to end, who will facilitate and enrich their development, and, through the intimate relations of several years, will come to stand to them *in loco parentis* for matters intellectual. In other words, the conditions of education are actually met: competent personalities are in intimate daily contact with growing minds over a prolonged period, and are helping them to assimilate a comprehensive body of knowledge suited to their abilities, with a definite purpose in view.

The principle of selection and arrangement of material is in every case the same: a body of organized subject-matter, chosen not by the pupils but by the trained masters of their education with intelligent reference to their preferences and abilities, and presented as an ever-expanding structure of thought and experience, having its respective parts fused and interrelated to represent an orderly, coherent, and significant world. This body of knowledge is not dismembered, checked off haphazard for credit, and then dropped piecemeal into oblivion; it is kept, from year to year, a living and growing thing in all its parts, and by skilful review and cross relationships is finally presented to the pupil as part of himself with continuous roots reaching far back in his consciousness. It signifies to him, not a lot of discarded beginnings, but a veritable organic achievement with recognizable features into which he has wrought his convictions, his tastes, his insight.

Toward such a curriculum the European boy feels a degree of respect that may hardly be imputed to the American youth who is asked to decide, in the plenitude of his wisdom, whether he will complete his education with a year of botany or "band" and "journalism." Efforts increasingly wise and strenuous are made to see that the European pupil is placed in a curriculum that accords with his proved abilities, and in Germany particularly the individual instructor is trained unremittingly to adapt his material with the pupil's psychology always in view. This done, however, nothing is permitted to weaken the sense of obligation with which a pupil faces his work, or to admit for a moment the validity of his temporary likes and dislikes. The carefully planned program of studies is for him a sacred thing; it is there to be mastered and not to be referred step by step to his personal taste. On this point the whole tradition of reverence and loyalty to learning, the attitude of instructors, and the sanction of public opinion are uniformly so relentless, that a problem in the matter simply does not arise.

American practice presents a curious contrast to that just described. The children of all the people appear at the high school in one great undifferentiated mass. There are no fixed curricula and very few required courses, except in certain technical schools where the absurdity of the elective procedure is too apparent to be ignored. From a long list, all apparently of equal value, pupils choose, not curricula in keeping with a definite object they may have in view, but three or four subjects for immediate consumption, shifting their choices year by year. Parents, whose secondary training,

if any, was under different conditions, contribute little. School advisers wield an appreciable influence, especially at the outset before the opportunities of the system have dawned upon the pupil. Continuity, class unity and background, the sense of a clear road behind and ahead, of commitment to a serious intellectual undertaking, all disappear in this mincing of knowledge into the small, equal, and independent credit units which serve as counters in the game of going through school. One hears the cry of the shops: "Save your coupons and get a diploma!"

From an administrative point of view the plan is admirable. The convenience, in a mobile population, of a common currency for use in transfer from school to school seems to have been a large factor in its development. The familiar "units" of a subject were crystallized into presumably equivalent fragments on an annual or semi-annual basis, largely as an administrative device. Once this scheme of interchangeable parts was well fixed, it facilitated the addition of new electives for reasons of local pride or convenience — an alternative in case of unpopular teachers, a resource with pupils that were hard to please, a concession to popular demand that the high school should teach something to "interest" everybody in the hope that more students would attend, if only for a few months. English school authorities require an assurance from the parents, often under penalty of money forfeit, that the pupil will finish the curriculum; we on the contrary urge that any fragment of a curriculum is proportionately desirable. The English school takes care lest a symmetrical educational structure be left without a roof; the American school offers a selection of portable, one-room cabins of uniform size and shape, and urges the pupil to try as many of these as he pleases.

Such a system, similar to a factory system of multiple unit manufacture, can be extended indefinitely in point of size, and in fact is being so extended in large cities. Efficiency methods in the mass production of cheap articles seem to have been carried over instinctively from commerce to education. The reason why so little educational loss is felt with increase in size is that all schools, large or small, are operated on the same plan, the small ones not taking advantage of their smallness to emphasize the educational opportunities sacrificed by the large ones. Nevertheless, any enquiry among the directors of large institutions shows at once that, although helpless, they are fully conscious of the great disadvantage under which they are placed.

The demoralization of a curriculum of this type is reflected clearly in both teachers and pupils. European secondary teachers may have shortcomings as instructors, but it is safe to say that none in France and Germany and few in England are deficient in their preparation as scholars. With us, on the contrary, the typical reaction to analysis of his own preparation on the part of the average high school teacher is one of humorous depreciation. The things one has studied but never teaches, and the things one teaches but has never formally studied make one of the breeziest chapters of our easygoing educational history. Indeed, one is never quite sure what one has studied: if required for credit, the course in question takes on good proportions; if sought for in residual knowledge or ability, it collapses into an apologetic "snap." Even when

the work of school and college has been well chosen and concentrated, the disarticulate conditions under which it is performed preclude the full measure of success.

Teachers with such mental experience are likely to prove much more successful in dealing with a pupil's personal and social problems than in achieving intellectual inspiration. A college education has been to them a challenge of personal worth and ambition rather than an absorbing intellectual adventure; its merits are a little difficult to demonstrate, but it is emphatically "the thing to do." This is the torch that they pass on to their pupils.

In relation to the pupil the modern curriculum is obviously the embodiment of the sugared doctrine of "interest" without obligation — a doctrine which he comes thoroughly to understand.[1] For if immature "interest" is to be the criterion of election, it is plain that obligation ceases when for any reason "interest" disappears. Where native stuff is strong or home conditions are very favorable, the pupil supplies his own moral stamina, but the school's contribution of moral pressure and example as regards the essential core of his intellectual activities is usually a blank. In its efforts to carry out a one-sided theory it has surrounded itself with a series of annoying and useless problems. A large class of these problems is illuminated by the astute and experienced pupil who presented himself for further solicitous treatment with the challenge: "I'll bet you can't educate me!"

## IV. CONCLUSION

There can be no question that suitable education during the adolescent years should devolve as a right and obligation on every child that comes to maturity within our borders. The requirements of modern civilization have become exceedingly involved and exacting. It is becoming quite clear that the years between twelve and eighteen, or thereabouts, constitute the period during which proper education, combined with the development of sound health and normal habits, are of the utmost importance for the subsequent happiness of the individual and for the welfare of the nation.

This doctrine is now so generally accepted that already the grouping for educational purposes of the years around this period of life is far advanced with us. In this respect our development is parallel with the English or French model. Especially in cities, the completion of elementary education at 11 or 12 years of age and the replanning of the next six years as a fresh epoch represent an improvement that must ultimately be widely adopted.

The future of education in America depends on what we do with these six years. A concrete episode in the recent history of a large western high school may furnish a suggestive text.

[1] It should be obvious that this is said with no desire to impugn the validity of a rational interpretation of "interest" in education. This principle has transformed the attitude of the successful teacher completely and with great effect. As a stimulus to the pupil's effort it is invaluable; but it is not the final or sole appeal or justification. When "interest" and "personality" have done their utmost, effort must still be made by the pupil.

Said the superintendent: "I got along with our present curriculum, or rather lack of curriculum, as best I could until my own son was ready for high school; then I went for it with an axe. Here was a boy that I knew had ability, a certain background of family training, and was willing to work. I was determined that he should have the best the school could give him. Out of our various courses I planned a four-year curriculum that would hold together. Then I selected from the entering class, on their tests and previous record, enough of the best pupils I could find to form a full division, and assigned to that group the ablest teachers we had in the school. With a little pressure these pupils were kept together throughout the four years. The morale of the group gained steadily from the start, and the institution got more brilliant graduates and later notable successes out of that class than it had had for a generation. The reaction on the school as a whole was excellent, and I have tried from time to time since then to do the same thing, but administrative difficulties usually make it impossible."

What an intelligent father desires for his own son, an intelligent democracy desires and should provide for its children — an education for each according to his capacity. The conception of a democratic education as one leveled to a colorless mediocrity is as grotesque an interpretation of democratic principles as a state of health in which abounding vitality in those who can acquire it is deprecated on the ground that only average health is fair to the community. No one believes this nor considers it a sacrifice of democratic principles to applaud supreme ability, whether it be in highly trained artists, in race-horses, or in baseball players. The time can hardly fail to come when, at the expense of the whole people, maturing human ability of whatever grade may readily attain its native level. It is the recognition and attention bestowed upon such ability that fixes the measure of its subsequent obligation to its supporters.

The foremost need of American secondary education is the frank establishment at the top of each considerable school system, of a school or a division that shall embody, for those capable of profiting by it, the best we know in the process of education for this period of life. It should copy no other known institution, but taking advantage of the principles to which other great schools have owed their success, it should produce under our conditions a type of intellectual discipline that will be fully worthy to rank with these.

The main object of this departure from our customary practice is not to satisfy a few bright minds, still less to compete with European schools; it is chiefly to set up a scale of values in education that will bring order into our confused ideas as to what clear and serious thinking is and can do. Although we deplore the second and third rate intellectual performance, that passes all about us for adequate education, we have as yet failed to create the conditions that will make anything else possible. The European has earned his reputation for thoroughness and a sincere national appreciation for a fine mental or spiritual product largely because at the top of his school system stands a workshop where such things are produced and insisted upon

for their own sake, and lesser education has thus true standards and a true perspective by which to orient itself.

Within our educational system the inauguration of a standard of high excellence at the top would serve as a welcome draught of clean, fresh air. Rightful intellectual interests are now smothered by athletics and other "student activities" because they possess little reality; and they possess little reality because they are not first-class ideas suitably dealt with by pupils with first-class minds. Old-fashioned honors and prize systems rewarding those who come out with the highest "marks," whether in school or college, leave the situation untouched; they make almost no impression on pupil or student opinion. Were the best fifth or the best fourth of these same pupils to be drawn off into a separate group and given a sincere curriculum administered by genuine masters in such manner as to nourish and develop the intellectual morale always latent in such minds, the attitude not only of the top fourth but of the entire body of pupils would be completely transformed.

There would then arise the problem of organizing suitable curricula for pupils of average ability whose right to an appropriate education now suffers from the confusion of such pupils both with the very able and with the very weak. With reference to the latter it should be carefully considered whether a full-time school has at present anything to offer that is comparable with the education afforded by regular employment when this is supplemented by efficient schooling of a simple sort either on the continuation school plan or preferably on the "coöperative" scheme of periodic alternation.

Sentimentalism in education, as elsewhere, involves the emotion that would confer rewards, advantages, or distinctions where they have not been earned; that would label the shadow for the substance. It is the polite name for educational "graft." Sentimentalism is the chief stock in trade of many politicians who regard the public schools as an easy fountain of honor and of some educational philosophers who fail to see that honest dealing with a child's intelligence is the basic and indispensable requisite in its education.

The European, if he were frank, could justly charge that a heavy mist of sentimentalism envelops the intellectual operations of our American secondary education, and could point out how widely it differs from the wholesome atmosphere that surrounds our school sports and games. These are perhaps the most genuinely educative features that our schools at present possess; they are honest, competitive, and thoroughly objective. The boy who can jump over a bar five feet and six inches high bears an obvious relation to him who can jump but five feet four. The sports program involves throughout the selection and pitting of merit against merit in open, interesting struggle. Manage sports as we do our studies: minimize exact achievement, and measure a contestant by his "effort" not by his success; invite a pupil to compete chiefly "with himself"; make up teams alphabetically instead of by rigorous selection; keep chronic failures always on the squad; finally, to every one who

can jump the bar at two feet give the same medal as mark of the finished athlete, and the significance and exhilaration that now attach to these exercises would rapidly ooze away. The frank objectivity that we put into sport, the European puts into head work, and makes it engage the best powers of each pupil; we sentimentalize our education, and the youth properly finds his own inventions more important.

We need a new scale of values not only for the sake of intellectual reality in the school but also for the sake of the community at large. If the whole nation is to attend the high school, there is the place to give each citizen a true vision of honest, objective human relationships. It is complained of our communities that they despise the expert adviser, that their ideas of civic welfare are often blurred by superficial prejudice and prepossessions. Yet it is difficult to understand how any other condition can obtain if our citizens pass through a school where excellence is not distinguished, where the stupid discovers no clear reason to respect the wise. It is nothing but the demoralizing theory and practice of a uniform, restricted output of labor applied to education.

The organization of top sections, whether in separate buildings or as separate schools under one roof with the great school-communities that we already possess, will present difficulties, of course. But what business corporation would consider "administrative difficulties" when its dividends were rapidly leaking away? The indispensable features of the proposed organization appear to be as follows:

1. A unit so organized that a small group of teachers may accompany their pupils from beginning to end, becoming intimately familiar with their needs and both collectively and individually serving them as their best interests require.

2. A group of integrated curricula consisting of a few constant main-line subjects, varied in ultimate emphasis according to certain major distinctions in type of pupil, but with detailed selection and arrangement left wholly to the instructor in conference with his colleagues.

3. A body of instructors whose scholarship is unquestioned and to whom successful teaching is both habitual and agreeable. To be competent secondary instructors these teachers must think in terms of curricula instead of courses, and they must be competent to integrate their respective subjects with the complete curriculum that confronts each pupil. We have done little to train such teachers in this country, but the problem is one of great professional interest and with due selection and effort can be solved.

It is an unwelcome task to suggest weakness and inadequacy in institutions that have endeared themselves, and have engaged our pride for what they appeared to represent. If defects exist, however, it is desirable for the native to outstrip the foreigner in their candid appraisal. That we are a people of genuine ideals the extraordinary extent and variety of our educational effort clearly proves. Surely the sense of reality that has successfully guided our determination to make education universal will not desert us when we seek to make it also valid and substantial.

# PART II

# EDUCATION FOR INTELLECTUAL PURSUITS IN THE UNITED STATES AND IN EUROPE

# PART II

# THE QUALITY OF EDUCATION FOR INTELLECTUAL PURSUITS IN THE UNITED STATES AND IN EUROPE[1]

## INTRODUCTION

INTELLIGENT criticism of education on the part of its friends is a duty that lies close to national welfare. This is apparently the case in America at the present moment more than in any other of the great countries of the world. Being the youngest of these countries we presumably have most to learn. In effectively organized territory and population we are the largest, and we possess the greatest available material resources; it is important, therefore, that we learn as speedily as may be. The extraordinarily rapid growth on fresh soil of an independent people with mixed racial inheritance has freed us from confining traditions, and in education as in other matters has accustomed us to change and expansion at an exhilarating *tempo* unknown to the nations with which we have most to do.

This absence of an arresting past, this glowing optimism with which we habitually enter a constantly enlarging future, this inevitable business of compounding a new nation out of probably sound but often unpredictable elements in a setting of unprecedented material prosperity—all this keeps the leaders of education in our forty-eight states continually confronting new situations that, although usually hopeful and interesting, are almost invariably perplexing. A personal faith in education as the means of national salvation is widespread in the United States; our problem is to strengthen this faith by making it intelligent and discriminating as to the actual results of our activities.

To this end an appreciation of what other nations have learned and now believe is of great importance. Readers of the Twentieth Annual Report of the Foundation will recall therein a discussion of secondary education in the light of certain principles drawn from a brief review of European practice. Inasmuch as secondary education in Europe is intelligible only when it is viewed as an integral part of the entire preparation there given to men and women who expect to enter intellectual pursuits, it is proposed to remove the customary partitions and, with the whole process before us, to examine certain of its aspects that are of great significance in the present stage of our own educational development.

Before proceeding with such a study, attention may first be drawn to those features of American procedure to which, it is believed, present European practice may offer a favorable or at least a suggestive contrast. The following outline presents a summary such as a trained foreign observer might conceivably report to his own educational authorities. No apologies are offered for the frankly critical nature of such an exposition. It is our weaknesses that we desire to discover; our special virtues, such as

[1] First printed in the Twenty-first Annual Report of the Carnegie Foundation, 1926, pp. 60–145.

the democratic basis of our education or the excellence of our material equipment, are perhaps sufficiently familiar not to require repeated enumeration. For the same reason we are mildly interested in the defects of other nations, because we desire to know what to avoid. But we are especially concerned with their successful institutions; these we may well study closely, and in so far as their merits may be appropriated, learn to profit by them.

## I. ASPECTS OF AMERICAN EDUCATION UNFAVORABLE TO THE SUITABLE PREPARATION OF INTELLECTUAL WORKERS

### 1. *Loose correlation of school, college, and university*

As conducted in the United States, the combination school-college-university whereby intellectual workers are prepared is a triple affair, in which the parts are operated virtually without reference one to another. For the great majority the school is a purely municipal institution, planned to attract if possible the whole adolescent population, only a small number of whom will ever go to college. Little by little it has shaken off the college "yoke" and set its own standards at a point to discourage as few as possible of the children of its supporting citizens. With few exceptions the college has been compelled to accept its product save for certain stipulations as to the distribution of subjects studied or the rating attained in what is essentially a mediocre process. As a result the first year of college work is heavily burdened with efforts to grade up the knowledge and ability of students having widely varying preparation. In some institutions special courses carrying no credit are required in order to supplement preparation that in many cases is deficient. Thus a student's "general foundation" which is begun, say, in the seventh grade of the elementary school and continued far into the college, suffers two disturbing transitions, one at the beginning of the high school and one after its close — both involving serious and extensive readjustments.

In contrast with the high school, the college and the university are usually endowed or state-supported institutions. Beyond requiring of the high school so many "units" of diversified attendance, or, in case of state institutions, the certificate of graduation, the college has few traceable roots in the lower organism. The college curriculum is almost self-contained, depending on native intelligence rather than prerequisite training. In most of its earlier courses and in many of its later studies it traverses on a maturer level the ground of the high school below it. Like the latter it has, and under existing circumstances usually can have, no definite aim, or even group of aims. It is a sort of informational department store where the student is invited to shop around and combine any elements that extremely varied motives may suggest, into a garment of knowledge. If he labors on it for four years, this costume is sanctioned as an education regardless of its shape and, to a very considerable extent, regardless of its quality. One goes to college to prepare to teach in secondary schools, or to satisfy the preliminary requirements for law or medicine, or perhaps even to have the world explained

and one's life enriched; but one may, and does, attend quite as comfortably in order to raise or maintain one's social status, or to make important friends and connections of value later in business, or to enjoy sports and social diversions in a distinctive and agreeable environment. Whatever the object in view, the same process answers for all, just as in the high school; indeed it differs little in the two institutions.

Only with transition to the university do the attitude and methods change. Here for the first time the institution begins to require the student to display specific aims. The uncertain worker is eliminated; each knows whither he is bound. Although much of the work for the master's degree may be of the earlier, minutely regulated type, it usually involves some form of constructive ability in a limited field. The doctorate fixes a definite goal and allows much freedom of procedure.

*2. Incoherence, duplication, and waste in the present organization of school and college*

When considered together, as they should be, the ten[1] years spent in satisfying the requirements of high school and college exhibit extraordinary incoherence, together with much duplication and waste effort. The procedure in both institutions is based usually upon the semester "course," an arbitrary division of subject-matter requiring from two to five lecture or recitation hours per week for one-half year and terminated by a written examination. Whether or not preceded or followed by related courses in the same subject, such a fragment commonly constitutes a unit carrying "credit" toward the 120–160 "hours" necessary to secure a diploma or a degree. The extensive freedom permitted in the selection and order of these courses results in many programs that are grotesque in their composition, and tends to sink *all* courses within themselves, for the reason that no uniform prerequisites can be depended upon. Many teachers even resent the efforts of those who would seek broad relationships as encroachments upon their territory. Unless subject-matter is intrinsically in sequence, therefore, a knowledge of one course may not fairly be demanded or utilized in any other. A student's curriculum is likely to be composed of upward of fifty heterogeneous fragments of instruction in many fields conducted by different teachers with widely varying methods.

Although each college professor would usually prefer that the student should come "unspoiled" to the study of his subject, the high school has anticipated in an elementary fashion almost every field in which the college gives instruction. For this it has a sound reason. Its population in overwhelming proportion proceeds only to graduation, if indeed so far; for eighty per cent of its students the high school courses present the sole formal interpretation of life and of the world to which they may ever give serious study. It is certainly a wise foresight that selects from every field of knowledge the simpler, more practical results, and fuses them into lessons suitable for adolescents whose period of formal study ends with the high school. For intellectual workers, however, this pale foreshadowing of the college treatment is a misleading

[1] It is assumed that the secondary unit consists of six years.

distraction, as to both its content and the manner of its handling. Suited to the average intelligence of the general high school community, it is a wasteful and tedious injustice to minds that are capable of thorough work upon good foundations. Under our system secondary and collegiate years are not planned to constitute a whole—the harmonious and consistent development of a single mind. The student gropes his way from year to year without inducement to look ahead. Indeed it is one of the alleged virtues, even of the modified elective system, that the curriculum need be woven only as taken, thereby consulting the student's latest inclination. But certainly no sane adviser laying out as a whole the ten years' work of a good student would ever countenance the extraordinary mixture that many of these programs now reveal.

*3. A misleading intellectual objective*

The administration of the educational process above described results in setting the pupil and student an intellectual objective that is inherently irrelevant and that hampers rather than promotes his real educational development. The active factor in a person's education depends on the nature of the intellectual problem that confronts him and the effect upon him of its progressive solution. Instead of putting directly to the student the real problem that should engage him, the American school and college puts foremost the mechanical task of taking sufficient hours of lecture or recitation to secure in four years the "credits" required for graduation. With a large number, probably with the great majority, of students the goal thus set up before their eyes obscures all other considerations; it offers a false objective to the weak and commercial-minded, and distorts the aim of those who are capable of better things; it substitutes for the idea of inner growth and enlightenment the notion of accumulating "points" that may be negotiated.

This mechanical setting and interpretation of what should be purely an intellectual problem reacts upon the student's attitude in a variety of ways. With the duration and quantity of his effort fixed in years and hours, the minimum acceptable quality is soon discovered, and within these limits the student proceeds to play a game with the adding machine. No central educational purpose appears; he is actuated rather by a series of immediate ends to be pursued, most of them quite irrelevant: How best to satisfy several different instructors, each having power of life or death over the credit in a three or four-month course; how to select courses so as to allow extra time for a favored study, for earning one's way, or for student activities not in the catalogue; how, in general, to manage or circumvent the credit-granting machine in the interests of a steadily changing web of personal purposes, some worthy, some trivial, but few of them bearing any relation to a clear educational objective. Whatever the ultimate purpose of a school and college education may be, it would require a student of rare purpose and judgment to keep his mind upon it under the pressure of issues such as those mentioned. In any case he need not do so; regardless of serious mental effort on his part he will be ground out automatically merely by virtue of the system.

Even if the curriculum were both coherent and free from repetitions, the course-credit system alone would involve the able and hard-working student in annoying and wasteful readjustments. Instead of making a through trip from New York to Chicago without change and with suitable stops, no traveler would profit by changing every hundred miles to an independent road with a different gauge of vehicle, different passenger regulations, and a different coinage with which to negotiate transportation. Fully parallel is the mental delay and friction arising during a student's journey through the hands of fifty teachers who, instead of helping him toward a single intellectual goal that he might clearly see and aspire to reach, severally hold him up for the satisfaction of tasks devised by themselves for the purpose of appraising and rating his effort to swell an arbitrary credit account.

The student's mental attitude is most significantly betrayed by the remarkable efficiency of the present system in "putting through" almost every type of mind and almost every degree of ability. To the democratic philosophy that every one can and should go through college the college has responded by becoming the sort of institution through which any and every one can go. Students who would be hopeless in coping with a real intellectual task have little difficulty, by skilful selection of courses and instructors, in accumulating term by term the "credits" necessary to keep themselves afloat. Both the stupid grind and the clever shirk are capable of this without resorting to serious processes of thought which require persistence, deliberation, and perspective. As students increase in numbers the process becomes more and more mechanical in this respect. Only in graduate work is a personal evaluation still more or less possible.

The weakness of the situation lies, it seems, not in admitting such students, if provision for them be thought desirable, but rather in submitting first-class mentality to treatment that sacrifices its essential quality to inferior and superficial pressures. American school and college life suffers from nothing more than from this. The sanction of student opinion is not squarely behind intellectual work for the simple reason that what passes for this is insipid and has too many arbitrary and fictitious elements; it does not represent the potential intellectual ability of the best portion of the student body when placed in the company of their peers and given a substantial task that is independently their own; it does not possess for them the reality or even the educational value that, in spite of abuses, they find in their athletics.

4. *Effect of failure to demand that the student prove his ability*

The European is invariably amazed at the characteristic feature of the American school and college system whereby no thorough and revealing account of what has actually taken place in the student is ever demanded. It is assumed that this is cared for by the accumulation of "credit" along the way, and the student stands forth at last an alleged synthesis of the virtues acquired by taking scores of courses with their petty tests that constitute at once their own goal and a complete release from all

further responsibility. Concerning what he knows of the content of these courses when all is over he is hesitant if not speechless; his expressed recollections usually deal with the professors.

This practice of assuming mystic virtue in four, eight, or ten years of mere school and college residence, without a final comprehensive inspection of results, cuts two ways. It is an unfair and slipshod accounting to the public for the enormous expenditures of money and of time at present lavished upon education. Here is a large part of the flower of American youth, spending ten of their best years in a process from which society has been led to expect the greatest development that can be wrought in a human being. It has the right to demand that a selected group of this type exhibit the fruits of a purpose and industry at least as sincere as that of the presumably less gifted youth struggling with his job. Yet these workers *de luxe* are turned out without any attempt to discover and display what they, the "educated," actually are and can do as a result of their education. Their sponsors talk of the value of associations with great men, of learning where to find things, of eventual powers of leadership, of ideals that will henceforth guide them, and naturally the students themselves highly approve of the life they have led; but an exacting demonstration into which the subject's whole force and intelligence must be thrown — a demonstration that lays bare sham, littleness, and subterfuge, or, as nearly as such things can, justifies promises made to the world, — this is never risked until one leaves college behind and comes into the university.

However the legitimate expectations of the public may be ignored, it is upon the student that the absence of a terminal search and proof has its most disastrous effect. In countries where such a test exists, coming as it does at the end of a prolonged period, it fixes the student's intellectual problem legitimately and unmistakably, and constitutes his central educational purpose; the changes in knowledge and ability that it implies must actually have taken place in order that he may confront with confidence an examination that is integrating and comprehensive. The whole artificial scaffolding of class years, semester hours, and term credits by which the college would help him to stand up, is removed; it is a question solely of his own mental growth that will bring the power to think and act. Institution and professors may assist, but the ultimate responsibility belongs to the student who thus has before him an honest statement of his real educational aim, one that he cannot evade and one that may properly govern every effort that he makes.

This sense of a clear intellectual goal, this inescapable moulding purpose, linking term with term, and growing steadily into a passion for a fine expanding structure, fails the American student altogether both in high school and college. There are no threads of careful thinking to connect one book or course with another, or to bridge the gap of distracting vacations. With "hours" full and "credits" to be earned his short-term obligations are readily discharged, and his mind is empty again for a week, a month, or a summer. Barely started in one subject, he is obliged to close it, deposit

his voucher, and turn to another branch of knowledge where the operation is repeated. The continuity of a "major subject" for a couple of years suggests that here at last is a substantial body of ideas, but even here the coherence is mere passive contiguity; there is nothing to require that those courses in literature, for example, be supplemented by his own reading and welded by hard thinking into a whole.

Ten years of this patchwork thinking permits and tends to produce a patchwork mind,—a brain whose thoughts are waves of semester length, whose conception of knowledge is of something to be swiftly crammed and deposited in unrelated packages, and whose experience with ideas that may be pondered, that grow luminous and tax the full intelligence for expression, is gained almost wholly, if at all, outside the classroom, partly perhaps in private activities with which restless souls have sought to supplement the kaleidoscopic and shallow operation of the official program.

*5. Ineffective preparation of those chosen to teach*

Finally, the acute foreigner comments upon two results of our system as they affect the essential accessory of education—the teacher.

*a. Lack of thoroughly self-educated scholars*

The men and women who propose to pass along the torch of learning in secondary schools and in colleges are peculiarly exposed to the conditions that have been enumerated. Those who follow law and medicine are likely to have pursued a more systematic and largely prescribed course that usually begins before the completion of full college work, and to have taken a comprehensive examination before being admitted to practice. Prospective secondary teachers on the contrary, except in the largest cities, go to their posts with a minimum of experience in their specialty, if indeed they are required or permitted to have a specialty, while college instructorships are filled by candidates whose preparation likewise varies enormously, from those with scarcely differentiated college training to a few who have concentrated for several years on a single field. It is impossible to form an exact estimate, but judges familiar with academic standards the world over would certainly deny the term "scholar" to the novitiates on college faculties as a group, while the beginners in our high schools are obviously very far below that level.

*b. Failure to ensure capacity to teach*

The further question whether these candidates, either by some self-acquired or by a God-given faculty, can teach, is left really unexplored, notwithstanding the fact that many university departments of education, in addition to elaborate professional studies, provide practice facilities whereby glaring misfits may be recognized and discouraged.

In such terms as these a foreign critic would offer about the worst that could plausibly be said of American educational provision for those destined to constitute her intel-

lectual and directive group. It is necessarily a generalized criticism, and like every generalization fails to take account of numerous exceptions—exceptions that apparently mark tendencies already strong toward the correction of the weaknesses described. These will be dealt with later.

It would be only fair, perhaps, to attempt to explain how and why these conditions complained of came about, for they all have reasons that are parcel of our national growth. It is more to the point, however, first to study the foreign background against which such judgments are reached, and then to make out, if possible, to what extent they are relevant to our situation. Whether circumstances that do not exist in Europe alter our conditions to such an extent as to justify our ways, or whether our historical development has induced and habituated us to practices that are now outgrown, is, of course, a matter that cannot be suddenly determined. The experience of our European colleagues should furnish suggestive parallels or contrasts.

## II. EDUCATION FOR INTELLECTUAL PURSUITS IN EUROPE

If France, Germany, and England be allowed to speak for Europe, they will severally agree that the procedure which ought to be followed in educating the most promising men and women is in many ways diametrically opposed to that which is customary in the United States.

The significance of this common verdict may perhaps best be considered after reviewing the practices developed under wholly unlike conditions by three nations that differ radically one from another both in racial temper and in cast of mind. In examining the evidence, however, it should be remembered that the essentials of the matter lie beneath the surface. When, under forms outwardly at variance, identical principles continually reappear, one is tempted to conclude that these principles are indispensable to the common purpose.

### A. The Education of Intellectual Workers in France

It is to France that one turns first in beginning a study such as this. In neither of the two other nations does concern for the individual intellect appear to play so prominent, so exclusive, a rôle as here. In Germany other considerations enter, and in England they become of great importance, as will appear later.

#### 1. *Close articulation of agencies for higher education*

Instead of a threefold institution as with us, France, like Germany and England, has in her education for intellectual pursuits but two divisions above the early elementary classes — *lycée* (or *collège*) and *université* — a fact which simplifies the problem considerably. Much work that we would term secondary is done in the *écoles primaires supérieures* and in the *écoles techniques* which parallel the *lycées* to about the age of sixteen and offer a practical vocational training.

The *lycée* takes a boy or girl at the age of ten or eleven whether from its own preparatory classes, or from the elementary school, or from private instruction, and keeps him for seven years when the university examines him and awards him, if successful, the *baccalauréat*, at the age of about eighteen. If he continues his education, the *université* may, and generally does, receive him at that point, and if he expects to become a teacher, it provides for his instruction while he earns successively (*a*) his *licence* (two or three years), (*b*) his *diplôme* (one year), and (*c*) admission to the *agrégation* (usually two or three years). The *doctorat* is acquired later by those preparing for research.

Both *lycée* and *université* are supported and operated by the state. They are managed by separate ministerial directors but from one ministerial office, and work together as a single organism.

The *lycée* treats every student as though he intended to go through the university, although a large proportion of those who take the *baccalauréat* never do so, and a still larger proportion of those who enter never succeed in, or even reach, the final examination.[1] The preëminent function of this institution is therefore to select and train an *élite* which the university may later refine for the professions. The American high school, being the only grade of secondary school we have, makes virtually no selection, and sacrifices its capable pupils in order to fit the average; the French *lycée*, in order to keep the track to the university straight and clear, sacrifices a large number who are unfitted for it, but who for social reasons object to attending the parallel *école primaire supérieure* with its simpler and more practical curriculum where they would undoubtedly be better off. This situation is further complicated by the delicate position in which the government finds itself with relation to the private schools which serve those who desire a religious or exclusive atmosphere. To weed out relentlessly would mean to fill these institutions.[2] Good and bad are therefore allowed to grow together until the harvest, and selection is made by an examination at the end rather than by pruning along the way.

The *université* rests firmly on the *lycée* and presupposes the full scope of general training that it provides. To a certain extent the two overlap; the larger *lycées* have advanced classes training selected candidates for the great technical and military schools, and for the *École Normale Supérieure* in Paris. Here much university work is anticipated. If a university is accessible, some of these classes actually attend it, so that a man securing admission to the last mentioned school, for example, may in three years cover the ground to which a student in the university devotes four or five. The

[1] Pupils in the last year of all boys' *lycées* numbered (November, 1925) 4834, or 56 per cent of the 8616 pupils in the first year (*sixième*) on the same date. In the boys' *collèges* the 1415 seniors similarly constituted 30.4 per cent of the 4655 beginners.

Figures for the final examination — the *baccalauréat* — exist only in gross form including both sexes and private as well as public schools. The examination is given in two parts in different years. In 1925, of the 32,927 admitted to part one, 12,904, or 39.2 per cent, were successful, while of the 20,566 candidates who were admitted to the second part, 10,819, or 52.6 per cent, succeeded. Results in a single large boys' *lycée* indicate that about 60 per cent of the semi-final class succeed in taking the *baccalauréat*.

[2] In 1925 the attendance at private secondary schools numbered 111,573 as compared with 155,038 in public schools of this character.

relations between the two staffs are even more intimate. Nearly every university professor in France has begun his teaching in a *lycée* immediately after becoming an *agrégé*, and certain teachers at the *lycée* often give courses at the university at the same time. Success at the final competition of the *agrégation* whereby a man earns the right to place "*agrégé de l'université*" after his name, admits a teacher to the general company of scholars. His employment in a *université* becomes a matter of later differentiation as between a teacher and a research worker.

In short, preparation for the professions in France is a single, clearly articulated process of which the second phase is but a freer prolongation of the first. General education is referred to the *lycée* which offers an unbroken and intensive training complete in itself. The university introduces the student to a special field of comprehensive character. The treatment is more mature, the spirit is entirely the same; instead of isolation and criticism, as with us, there is coöperation and mutual dependence.

*2. Resulting clarity of aim and economy of operation*

Out of this unity of organization and personnel there rises clarity of aim and economy of operation that a decentralized system like our own may perhaps never hope to attain.

The twelve years, more or less, of converging training are surveyed from beginning to end as a whole, each portion of which makes its suitable contribution to the finished fabric. The first four years furnish a rough body of knowledge and aptitudes which the next three deepen and consolidate into a mass of ideas constituting the student's "general" equipment; the five or more university years bring strictly professional training within a limited field. Here nothing is incoherent; a pupil may choose the broad directions of emphasis that best suit his mind and inclinations: classical or modern literature, or mathematics and science; but within those lines his work follows a fixed order of continuous development under instruction by masters who are expert scholars. Whimsical and haphazard elections disappear, and especially that troublesome twilight zone between "general culture" and "specialization" where the American college student gropes frantically for years. Doubtless the individual loses some freedom to follow his momentary bent, but the French proceed in the belief that, for minds capable of sustained application, a balanced curriculum requiring, above all, coherence and continuity of thought is worth far more in ripe education than disconnected and scattered spurts in quest of choices that may or may not prove appropriate. So, too, with the waste effort involved in duplicate work. All material of instruction is introduced with eye on the program as a whole. What with us would be a year's course in high school physics, but made so easy that a student who desires to understand the field must take it again in college, becomes in a French *lycée* a thorough three-year curriculum in mathematical physics interwoven with other sciences. Only good minds can weather it, and they do it once for all, unless they later study it to teach.

*3. Veritable intellectual problem of the French student*

The capital distinction between American and European education from first to last rests in the nature of the student's intellectual problem, the way in which it is set, and the effect that it has upon his thinking. The American says in effect: "The purpose of school and college is to 'pass' so many semester hours of recitation for so many years." The Frenchman says in effect: "The purpose of the *lycée* is to insure a certain fund of information, and to develop a certain facility in the appreciation and treatment of ideas." The difference in the pupil's reaction to these two propositions is heaven wide. The American thinks he has the same purpose as the Frenchman, but he has not, and he cannot have so long as he states his problem as he does.

*a. Attitude of the student*

From the moment the French boy enters the *lycée* at *sixième*, but especially as with *seconde*[1] he begins his three final years, he knows that his object is a change within himself, — a change that must be permanent and measurable, not in the number of barriers that he has succeeded in clambering over, but in the quality of the response that he habitually makes to significant questions and situations. To be sure, he recites a certain number of hours per week; but the number has no importance, it is simply his day's work. He has his *compositions*, or term examinations, and his rather nominal *examen de passage* at the end of the year, but they mean nothing except as evidence of how he is getting on. He takes a certain interest in his *note* or "mark," not with the idea that it counts him anything, unless it be a prize or honor rating, but because it portends good or ill in a far-off future event. Nothing that he does concerns the amassing of credits; everything is directed solely to the quality of his performance. He may delight and satisfy one teacher or anger and distress another; it makes no difference in the end, provided he takes from each the intellectual stimulus and criticism that helps him to his goal.

The American boy can span with his mental vision things as they *look* in text or note book — the things he must put down to earn his three-month credit and may then freely consign to limbo — no thinking necessary. Not so the *lycéen;* if he has a mind and can reflect, his daily study and instruction play upon a mass of ideas built up through an effort not to remember but to understand; memory, as the American uses it, is clearly useless; the new idea must mingle with those of other years whose source he has forgotten but which have become part of himself; his attention, in so far as it will serve his conscious purpose, must be on the object and not on creating a visual picture that will last the semester out. The terms of his problem, growing clearer and more definite year by year, give him every encouragement and inducement to learn to think. This is his true purpose, which is never in doubt.

In the *université* the same situation is intensified. Here the responsibility formerly assumed by the *lycée* for guiding the pupil step by step is shifted to the student him-

[1] The three final years of a *lycée* are known as *seconde*, *première*, and *philosophie* or *mathématiques*.

self. He is obliged to register for the particular end in view, but attendance at a lecture or other exercise is voluntary, no record is taken, and the relation with his teachers becomes wholly personal. However, this complete freedom from the earlier, closely-regulated *lycée* régime is external only. Intellectually he has simply exchanged one problem for another, and he proceeds entirely in the manner in which he has already been trained, with masters of the same calibre and tradition.

In the faculty of letters or science the student's first objective is the *licence*. For this he must pass groups of examinations numbering four in letters or three in science. The free lance selects these as he wishes, but the prospective teacher must confine himself to groups of related subjects. The future history teacher, for example, must take (1) Greek, Roman, and oriental history and antiquities; Greek or Latin language; epigraphy, archaeology, etc., (2) medieval history with paleography, diplomacy, and archaeology; (3) modern and contemporary history; (4) physical, social, and economic geography and cartography. The science teacher takes (1) physics, (2) chemistry, and perhaps (3) mineralogy; or (1) zoölogy, (2) botany, and (3) geology.

These three or four examination groups may be taken when and in any order the candidate pleases. He must allow at least two years, and often requires three or four. In most subjects there is an official syllabus which changes periodically and helps to concentrate the candidate's efforts. The questions set in past examinations give clues to the manner and spirit of the tests, but as will be seen later, these are so general as to afford little guidance. The French student must think his own way through to a clear appreciation of each of several extensive branches of knowledge. He has had, indeed, a fairly comprehensive preparatory experience in the *lycée* in whatever department he may now select, but the prospect is not one to tempt a weak, frivolous, or ill-equipped mind. Such a project lives with the student day and night. For him there are no vacations. One must learn organization, self-control, the rhythm and capacities of one's mind and body, and complete independence of all outside and artificial aids.

Thus at an age when our students are being assiduously spoon-fed hour by hour, in a mechanical, indulgent fashion, the French boy or girl faces a task that is purely intellectual and personal. This fact of itself clears the lists amazingly, as our colleges would discover if they should try the plan. If offered a free road and two years to go to a searching examination in any nameable field, one is bound to admit that the less resolute of our students would decline the proposal regardless of proffered aids. In the letters and science faculties of France, particularly in the provinces, it is exceedingly rare to find a student who is not thoroughly serious in his intentions.

*b. Attitude of the teacher*

This attitude of responsible initiative on the part of the student implies a correlative function in the teacher. The outward relation of the two expresses the exact truth of the situation: the student is educating himself, the teacher is assisting him. In the American classroom, gloss it over as one will, the student labors not to edu-

cate himself but to satisfy a master who devises a series of obligations that may range from the impossibly difficult to the ridiculously easy, and that may have little to do with the current mental requirements of some or all of the class. Yet in every course a new set of these artificial obligations becomes perforce the immediately pressing concern of the student, who receives or is denied credit according to the measure of his success in discharging them.

In the French classroom, on the other hand, the professor endeavors clearly to envisage the goal toward which the student is already consciously pressing, and to give him that which in his judgment and experience will best aid him in its attainment. The student does not have his eye primarily on the teacher; both student and teacher have in view an objective already definitely fixed, an objective thoroughly understood by the latter and eagerly desired by the former. What the student does with the professor's wisdom is his own affair; it is precisely in deciding what to do with it—evaluating, comparing, relating it to his ultimate purpose—that he gets his education.

Having no official hold on the student, the professor can attract him only in case his offering commends itself as helpful toward the end in view. This effectually disposes of that professorial tyranny which with us frequently takes the place of good teaching. The student may do all or none of the exercises suggested, or may cease attendance entirely as best serves his need. The French "elective system" puts the following problem: "Choose a substantial intellectual task and then select from point to point, with your own mind, the means for its accomplishment." In America no task is set. Largely on their reputation with others a student selects year by year "courses" that demand for the time being his complete mental subjection; once in the path set for him, he cannot change; he must succeed or waste months in failing.

In the provincial French universities the students' freedom is modified by the fact that there is often but one man teaching a given subject and that in the final examination for the *licence*, which is a local affair, it is considered wise to be favorably known to the examiner. At Paris and in the higher examinations for which one goes to Paris, this limitation, whatever it may amount to, does not operate.

Under circumstances such as these one might expect French professorial service to consist of a sort of high-class coaching for examinations, and in a sense this is true; professors never lose sight of the fact that their students are working with a much larger purpose determined from without. But several considerations save their professional integrity. No teacher might hope to cover minutely for each group of students the entire field set for a given examination, say in medieval history, even if students were to arrange themselves in progressive groups for the purpose, as they do not; for all such comprehensive treatment the student is taught to hold himself responsible. The professor may take simply a series of topics from the field in question, changing them from year to year. These he may elaborate in lectures, give out as voluntary essay themes, have prepared for oral report, etc., all with the idea of

showing the student *how* to work for himself rather than with any notion of giving a complete review. An enormous amount of written work is done, and each piece is returned carefully corrected and minutely criticized, with a mark to indicate the value that the professor would attach to it. This, of course, is solely for the student's sake; no time is wasted in unrevised composition intended merely to enable the professor to estimate the student's "credit."

A favorite type of exercise, especially in preparing for the higher examinations, is as follows: A topic of some importance is assigned to a student perhaps a month in advance. On this topic he makes preparation and when the time comes, "gives the lesson" in the form of a 30–45 minute oral report, preferably without notes. On this performance he is criticized first, perhaps, by himself, in order to disarm the rest, then by members of the class, and finally by the professor. Thereupon with the material warm from discussion, the professor takes the floor and treats the same subject as he himself would have handled it. This sort of thing is done again and again until at last a feeling for adequate and effective form with relation to a certain content is established.

Out of such varied written and oral exercises as these it is easy to see what opportunity there is for the French *professeur* to discover and cultivate the value that he chiefly esteems—discriminating intelligence in a becoming dress. Throughout *lycée* and *université* the characteristic emphasis is on the refinement of intellectual quality. Hence the significance of endless painstaking written work. In the translation of a language passage, in the well-known *explications* of a literary text, in the delineation of a historical figure or movement, or in the analysis of a mathematical demonstration, the object is to *dégager les idées*, not in a quibbling spirit, but with a penetration of which the validity is a recurring charm. With the same acuteness, in turn, ideas are developed and combined, a revealing thumbnail sketch is preferred to a catalogue of qualities, distorted form and loose sequence become synonymous with bad thinking. "*Former l'esprit*" is the object, by which is meant to produce a full mind accustomed to direct incisive analysis and incapable of responding except with a measure of critical intelligence and distinction.

For all of this the professors themselves are the conscious exponents and the more or less unconscious models. Instead of merely rising to a given level, they have all been *selected* in a crowded and rigorous competition where just such qualities are the decisive factors. Even the students, most of them on scholarships, are the result of similar progressive selection for similar qualities. For years France has carried on this system of intellectual eugenics with the result that those elements with which the race is most highly endowed have attained a magnificent fruition known to all the world.

4. *Responsibility for final inspection*

The pivot on which the quality of French education hinges is the fact that periodically, at certain moments chosen by himself, the student must submit to being thoroughly searched and studied as to what he knows and can do. He is conscious

of no other terminus for any stretch of his educational career. The twelve-year-old boy in the elementary school takes a written and oral examination to show what effect his studies have produced; this brings him a *certificat d'études primaires élémentaires.* The *lycée* similarly closes with a group of written and oral examinations taken in two successive years for the *baccalauréat.* Four groups of written and oral examinations taken usually within a year of one another combine to give the *licence;* a thesis with a group of oral interrogations brings a *diplôme d'études supérieures;* after written preliminaries a week of competitive oral tests determines his final selection in the *agrégation;* and if taken, the *doctorat* later provides a thorough test of his powers of research.

By way of this strenuous personal experience each student becomes aware that the process of education must bring forth fruit in a final product of which the public may take account, whatever the contributory activities may have been. Soft and irresponsible enjoyment of public endowment on the part of aimless scions of good family is no part of the scheme. The obligation to justify one's right to a high intellectual calling by demonstrating superior nerve and tissue in a rigorous test is precisely what makes French intellectual democracy so genuine and homogeneous.

The kinds of examination developed for this purpose in France are two: the usual qualifying type of test and the competitive examination, or *concours*, both of them well worth careful consideration. Tests for the *certificat*, the *baccalauréat*, the *licence*, the *diplôme*, and the *doctorat* are of the first sort, while admission to all the *grandes écoles* together with appointment to state positions, such as that of master in a *lycée*, are competitive, like the *agrégations.*

Coming as they do at the end of a relatively long period of preparation, all French examinations are conceived as tests of intelligence operating over a broad perspective of coördinated knowledge rather than as attempts to check up a small body of new ideas without roots and without relationships. Aside from certain immediate causal connections, the latter are inevitably more or less a reflection of the memory, as compared with the long-range thinking required to systematize a great field of interdependent ideas. Instead of compartment "courses" in histology, animal physiology, human physiology, embryology, bacteriology, and so forth, each examined and done with, when its day in the curriculum is finished, the French system removes the partitions and presents a field of zoölogy with fundamental laws uniting the whole science of animal life. This with its correlated botany becomes the science of life in general, or biology. It is the nature of the competent human mind to crave the largest possible relationships, and purposeful thinking is constantly stimulated and rewarded by such opportunities. It is this capacity to disentangle successfully the larger elements in a long and intricate sequence that French examinations seek to test. They consist chiefly of large single themes aiming, if possible, to place the candidate at an unwonted point of view and to test his power of orientation, his grasp of that which is significant and basic. His detailed information is revealed on the way as a matter of course; what the examiner is after, however, is to feel the quality of his mind in deal-

ing with a complicated mass of ideas, to know whether it be centred in itself or in its object, to learn its capacity for correct analysis, for organizing and arranging its results, and to discover its power of lucid, interesting exposition.

Thus a candidate for the *baccalauréat* deals with such a theme as this: "Explain and comment on the following thought of a contemporary writer: 'It would be melancholy indeed if we did not possess Racine, but France would not be France if Corneille had never lived.'" The examination for the *licence* presents as a main theme: "The rôle and influence of John Calvin," or "Can the history of the past aid us in foreseeing the future?" or "European emigration to America since 1915." The *agrégation* in philosophy proposes the following: "Philosophers, moralists, and poets have often set man in opposition to Nature. In what sense or senses is this opposition conceived, and what are their value?" or in history: "The political and social evolution of England from the electoral reform of 1867 to the end of the reign of Queen Victoria." One does not "cram" such things the week before; one thinks the field through backward and forward in new combinations year after year, until it becomes an abode where the mind is at home.

In the competitive examinations, where it is a question of limited selection, these qualitative elements assume exclusive importance. To illustrate again from history, the characteristic final test for the *agrégation* takes the following form: The candidate draws the topic for his oral test in medieval history say at 7 a.m. He is conducted to the library, given all the specific aids he can think to ask for, and there labors on "The idea of papal power in the Middle Ages" until one o'clock. Then he takes his place at a little table facing a board of from four to six judges drawn from among the best scholars in France, and in the presence of whatever public desires to attend. This audience it is his task to entertain for forty-five minutes. The judges ask him no questions and make no comment. When finished he passes them his notes and departs.

Thorough knowledge, penetrating intelligence, and engaging personality inevitably rise to the top in a contest of this kind where perhaps six are to be selected out of a hundred applicants. In the words of one examiner: "We have never been obliged to say: 'His knowledge is perfect, he made no blunders, we shall be compelled to admit him,' but how often have we exclaimed, 'He is deficient here and is weak there, but what intelligence he shows!'" After the examination all candidates are invited to meet the examiners who carefully explain to them why they were accepted or rejected.

The oral test that is the decisive factor in every examination is always open to the public. Of this tradition the French are proud, and with ample reason. With all the opportunities for mishandling oral examinations because of varying personal standards and equations, there is impressive dignity and justice in the requirement that the honors of the state and of its institutions be granted only to those whose mental attainments are sufficiently robust to permit of a friendly but thorough personal probe under public scrutiny.

This whole attitude of moral obligation to "produce the goods," so characteristic

of American realism in every other field, is completely subordinated in our régime of education. The average American business man who now sighs at the mystery of our schools and colleges on this point would understand and respect the French system as thoroughly as does the entire French nation. From the kindergarten to the B.A. degree the American, if examined at all, is examined only on what he has freshly in mind in each subject from the study and lectures of the few previous weeks. An attentive student, if he has done the reading and heard the lectures, takes a rest during the week of professorial inventory; if not, he "crams"—often with equal success. Essays and exercises during the term deal almost invariably with fresh matter to be dug from books and contained within the narrow subject limits of the "course." If a pupil's study in a different "course" sheds light, it comes as an unexpected revelation; perhaps as an intrusion; it may even be "unfair" to make use of it. At any rate, few teachers, particularly in high school, know what to do with it. The faithful performance of an average mind on material assigned by the teacher brings the verdict of "good work," and the accumulation of such verdicts through eight or ten years is regarded as the great American substitute for a "pernicious examination system."

To a Frenchman, this seems curiously like being commissioned to build a house, and then when brick and stone, wood and iron, cement, sand, and paint have been brought together in carefully checked piles, asking for a quittance on the ground that the house is finished. The familiar apology of the American graduate: "I did n't learn much in college, but I know where to find things," is close to the truth. He has constructed nothing but piles of raw material. The general foundation in the secondary school, which the European lays firmly and well and then trusts, is too loose and unsatisfactory for the American to build on; so he tinkers away with it in college and keeps on assembling raw material in varied, unorganized masses, until obliged at last to use, as best he may, the largest pile of it for his intellectual home. The European, having laid a broad and secure foundation in the *lycée*, begins building as soon as he enters the university, using material drawn as he needs it; thus he soon has a place in which to live and do his intellectual business while enlarging or remodeling his premises. Furthermore his creation represents a value that he can display with confidence.

Among us such minds as do rise above the disintegrating system we impose, and insist on consolidating and organizing the territory over which they range, are accounted our brilliant successes. But the impulse which guides them, the very characteristic which has always distinguished great minds from small, we either ignore or do our best to defeat through a system intended to make education easy for the weaker brethren. It is at least disconcerting to realize that the European cherishes precisely this impulse as the heart of his whole educational system and by its effect measures the quality of his entire output.

*5. Preëminent importance of the teacher*

It is in the teacher that the fine fruit of French education appears. In no country is the conscious selection of minds wherewith to carry on school and university activities so nearly analogous to a literal skimming of cream.

In French eyes the teacher is not merely a well-meaning individual posted to check up information from point to point, whether of textbook or lecture, with a view to hitching a dependent or passive pupil gradually along to an automatic conclusion. The function of the teacher in the higher schools and universities in France is to give, for capable minds already alert and intent upon their own self-development, an abundant access to the most significant fields of knowledge under the guidance of true masters to whom these fields are a life possession.

Teachers, therefore, are the best trained and the most thoroughly tested men and women whom it is possible to select. Their method is largely one of example — the pupil learns by contact with exceptional intelligence in action. At this point mass education is not the object. Rather is it the purpose, for the sake of a national sense of fitness and proportion, to keep the finest intellectual achievements of the nation vividly alive, as well as to nourish the power of similar achievement among the gifted minds that are continually rising from every level.

The career of the prospective *lycée* instructor may be briefly sketched. Equipped with the *baccalauréat*, he proceeds to the university where he undertakes such subjects as will ensure his comprehensive acquaintance with the field in which he proposes to teach and with other closely related branches. These are all expressly stipulated in the state requirements. Another may wander at will; a teacher must know his subject.

Three years of work usually bring the *licence*, as already described, but the question of time is an individual matter. The *licence* is the first and indispensable teaching certificate for secondary schools. Nothing further is held by teachers in the *collèges* in which about one-third of the secondary pupils are educated, and even in the *lycées*, a large number of the instructors have only this certificate. Superimposed on a thorough secondary curriculum, however, three years of serious work in a single field is enough for acquiring a pretty accurate knowledge of it. At a somewhat maturer level this is all that an American university requires for a doctor's degree. Earned wholly on individual initiative and confirmed by a searching examination, the *licence* fixes a sound basis for a competent teaching profession.

The advanced grades may theoretically be earned in two years. The first is the *diplôme d'études supérieures* which is fairly equivalent to the American master's degree with thesis. The second is the *agrégation* — a highly competitive examination on a difficult program in each specialty. Success in the latter test is altogether a matter of personal and intellectual quality. The program changes each year, and a candidate may succeed at the first trial, or he may try in vain for many years in succession. The peculiar form of the examination, already partially described above, places a premium on an extraordinary combination of qualities. Mere pedestrian industry has

little chance. When distinguished scholars, themselves chosen originally in the same fashion, pass in review the unprompted oral performances of a group of candidates, not to assign a rating but to select the best, the deciding features are no longer the accurate knowledge or the logical reasoning of the ordinary examination. Subtler elements of intelligence and personality turn the scale; qualities of insight and aptitude that are rare and elude cruder measures, here respond to the French feeling for brilliant analysis, lucidity and justice of thought, as well as taste in form and expression. Technically it is probably the severest ordeal of examination known, but it places at the disposal of French youth an intellectual virtuosity that is unequaled.

An inner group of candidates gathered at an *École Normale Supérieure* at Paris, for men, and at Sèvres, for women, deserves mention. Recruited by competitive examination after from one to three years in a special advanced class conducted at several of the greater *lycées*, the fortunate contestants spend three, or in some cases four, years at state expense at the only institution in France that resembles an English or American college. For the men, this advantage is to-day purely social as almost all the work is done at the Sorbonne, precisely as by other candidates, but the tradition is precious. The roll of *agrégés* who have been members of this group sounds like a list of the makers of French civilization.

Candidates who are selected in the tests of the *agrégation* become *agrégés de l'université*—an exclusive band of scholars, including practically all French university professors and slightly over one-half of the instructors in the *lycées*. The doctorate is necessary for a professorial position in a university, but serves solely to mark notable success in research; the general scholarship of a university professor may be no greater than that of many *agrégés* who remain in *lycées*. It is this scholarly and homogeneous group of men in *lycée* and *université* who unify and fix the standard of instruction not only in their own classes, but throughout the higher educational system including the *collèges*.

Are French teachers scholars solely, or do they also understand the developing mind and can they teach? A foreign observer answering this question must beware of making too many assumptions. French methods are possibly well suited to the French mentality and to the French point of view. What follows, therefore, is offered altogether from an American standpoint and with reference to American conditions.

The finest minds the French can select for special training are brought together at Paris in a special *normal* school. Nevertheless, the movement to discover and apply the processes and economy of learning that are appropriate to the immature, a movement that has reached respectable proportions in England, that is widely accepted in the United States, and that has found its finest fruition in Germany, has made no practical headway in French higher education except in preparing women for the *agrégation* at Sèvres.

Candidates for the *licence* are admitted wholly without training, whether in educational psychology, in method of any sort, or in practical problems of teaching. Can-

didates for the *agrégation* are required to complete a three-week period of apprenticeship in a *lycée*, where they assist selected teachers who in turn report on their efficiency. This *stage*, as it is called, is not usually taken very seriously by the candidates, and is of still less importance to the examiners. The latter rarely see, much less consider, the report. Perhaps half of the candidates have already taught as *licenciés*, and hence are excused from the *stage* altogether.

One important compensating feature should not be forgotten. The chief idea underlying the competition for the *agrégation* is in itself pedagogical, namely, the power of clear, forceful, interesting, and even artistic exposition. For success in this great attribute of the good teacher not only the terms of competition but all the exercises leading to it, such as "giving the lesson," which has already been described, consciously prepare. The teacher, as a priest of available, effective scholarship, is magnificent, although as an expert in young minds he may be *nil* in so far as his training is concerned.

The result, as revealed by representative observation of the *agrégé* in action, is what one would expect. Having no scientific method on which to rely, each falls back on that wherewith he was himself instructed, and a pupil, in rising from class to class in French language and literature, for example, meets a totally different method and emphasis with each new teacher. His training having been wholly egoistic, he tends to monopolize the stage as a lecturer, instead of animating his class and, by skilful question and answer, securing an active participating attitude favorable to instruction. Two or three pupils are commonly "interrogated" in a prolonged oral examination at the beginning of the hour, no one else participating. A "mark" being assigned to each and announced to the class, the lecture follows. In general the pupil is outwardly passive or engaged in endless note-taking. An independent, uninterrupted recitation or exercise by a pupil is rare; when attempted, the teacher is inclined to trail the performer with corrections. Desire for accuracy and failure to grasp the pupil's needs lead many teachers to dictate their work. As recently as 1922 a ministerial rescript tried some long-range pedagogy by forbidding teachers to dictate more than fifteen lines per hour! The pupil's constructive thinking is done in the *étude* rather than in class, and a great amount of carefully corrected written work seems to be the teacher's chief reliance.

It is frequently suggested by the French themselves that the instruction of the *agrégé* is "like cutting cordwood with a razor." Pupils of marked ability, to be sure, are served by the mere contact with distinguished intelligence as it comes before them day by day, but the wavering mind that needs adjustment has a dreary time. Meanwhile the number of teachers who, failing to penetrate to the professional significance of their task, feel themselves above it and bored by it appears to be considerable. For the sake of education, not only in France but in the world at large, an outsider cannot resist the wish that these remarkable scholars would devote some of their genius to acquiring a suitable technique, and realize that, as Sir John Adams

has reminded us, "verbs of teaching govern two accusatives, one of the thing and one of the person." Educational progress has largely resulted from an appreciation of the fact that the second is not the less important.

## B. The Education of Intellectual Workers in Germany

Though differing widely in detail of organization and method of procedure, particularly as concerns the teacher, the education of intellectual workers in Germany is based upon the same underlying principles as in France. In the essentials with which we are here concerned, these two nations unite in maintaining a powerful continental tradition.

### 1. *Clear definition of functional aim in higher institutions*

The general foundation of intellectual education in Germany is laid in a group of institutions which are identical in type; their varying names—*Gymnasium*, *Realgymnasium*, *Oberrealschule*, *Studienanstalt*, and so forth—represent variations merely in the emphasis or arrangement of the curriculum or the sex of the pupils. These schools receive the boys or girls at the age of ten and deliver them nine years later to the university and higher technical schools prepared for the special training there that is to make of them doctors, lawyers, teachers, engineers, or other public servants. In Germany, or rather in Prussia, to which this sketch particularly applies, certain educational activities that in France sustain a series of private schools, have been incorporated into the state schools or harmonized with them. By this means all secondary education in Prussia is integrated as it were horizontally, as well as vertically, to a degree that obtains in none other of the countries under consideration. All institutions of the type mentioned look directly toward the university which is their guiding influence, and with which they have always been closely associated.

Nevertheless, in Germany, these nine years, like the corresponding years in France, constitute *en bloc* a thoroughly organized liberal training that is in high repute among those who desire a broad preparation for business or other careers not requiring a university education. In this respect it fully corresponds in popular thought to the general B.A. or B.S. curriculum of the average American college and fills numerically a closely analogous position. Indeed, the German secondary school is the more select of the two, graduating but one and seven-tenths per cent of the nineteen-year age-group, whereas nearly three per cent of the twenty-two-year-old men and women in the United States receive baccalaureate degrees.[1]

The mortality involved in passage through these schools is heavy. The final class in the boys' schools is but one-fifth the size of the entering group at ten years of age.

[1] These figures are drawn from the Prussian census of 1919 and the examination returns of 1921–22, according to which 9900 men, or 2.89 per cent of 341,454 nineteen-year-old men, and 1765 women, or .52 per cent of 333,826 nineteen-year-old women, received the *Reifezeugnis*. In the United States the Bureau of Education gives 29,296 as the number of baccalaureate degrees given in 1921–22 to men, and 18,558 to women. These are respectively 3.62 per cent of 809,005 twenty-two-year-old white men and 2.19 per cent of 845,871 twenty-two-year-old white women listed in the 1920 United States census. Similarly, of the same age-groups estimated in 1924—877,608 and 917,601 respectively—4.13 per cent of the men and 2.72 per cent of the women received baccalaureate degrees.

But no concessions from the fixed ideals of university preparation are made to mitigate this result. The pruning is carefully done year by year as the class progresses, thus stimulating and focusing instruction for the survivors. Consequently, at the final examination only about eleven per cent fail. In 1923 three-fifths of the successful candidates reported their intention of studying at the university. In normal times this proportion is said to be much higher.[1]

Although part of the excess attendance in the first six years may be traceable to the old pre-war practice of giving military privileges to such students, it is "good form" in Germany to attend the "higher school" even for a time, and the theory is still generally held that a truncated training of this sort is better than the practical education provided by the *Mittelschulen* in a curriculum which is complete at the age of sixteen. Relative to high school attendance in this country the number of pupils is in any case small. Of fifteen-year-old children in Prussia only approximately seven per cent in all are in these high-standard schools, whereas in the United States over fifty per cent of our comparable age-group are in the high school.[2] It should be remembered, however, that we have hitherto made no provision in our high schools for a secondary curriculum of first quality in the European sense.

*2. Economy of functional organization*

For the good student, indeed for any student, this integration of his general preparatory education, which we spread over three distinct, often badly articulated, institutions — elementary school, high school, and early college years — makes clearly for economy of effort and momentum of achievement. Though covering nine years, these schools rarely contain over six hundred pupils and average far fewer. Their staffs are highly expert and stable. Their curricula are carefully designed programs fixed in outline by ministerial advisers, but freely filled in by the teachers themselves, not as individuals, but as groups of coöperating colleagues. Such conditions, together with the custom of thoroughly preparing a teacher to teach more than one subject and the general practice of entrusting him through a series of years with the same class, produce a maximum of intimacy between pupils and their masters and favor a consistent, coherent development.

The nine years spent at the *Gymnasium* or its sister institutions are intended to discipline the pupil to systematic and productive thinking, to introduce him to sound methods of intellectual procedure in the various fields of knowledge, and to equip him with an adequate body of trustworthy general information which he has thought through and assimilated. His final examinations test his "ripeness" to proceed with this equipment to the study of the special activities in which he proposes to engage. In the university general education becomes henceforth incidental, and is certainly more flexibly agreeable and probably more profitable than if officially required for the final examination. The soil has been admirably prepared and genuine interests

[1] The above figures are taken from *Jahresberichte der höheren Lehranstalten in Preussen* for 1923, p. 173 and *passim*.
[2] See page 16.

take firm root. Few German university students fail to take some university courses that have nothing to do with their specialties, courses in the fine arts, for example, both because the schools have so effectually opened their minds in these directions and because a record conspicuously deficient in this respect would hardly meet the approval of the examiners.

Relations between the schools and the university are probably less intimate in Germany than in France. There are no advanced classes in the schools doing university work as there are in France; nor except rarely are university professors in arts and sciences drawn from the secondary schools. This transition is much more difficult in Germany because of the two years of specific technical training required of those who propose to teach in the schools. This greater differentiation of the two agencies, school and university, serves to sharpen their supplementary functions. Coördinated under one ministerial control they constitute together, quite as truly as in France, a single instrument for a harmonious intellectual development.

3. *Reality of the German student's objective*

The teacher and the student react to one another in German education in a manner well calculated to further directly the interests that both have at heart without the interposition of arbitrary or artificial considerations.

*a. Attitude of the student*

In the German system, as in the French, what we have termed the "intellectual problem" of the student is stated as frankly as possible in its actual terms from the outset. A final goal is erected in the shape of a definite state of mind, of knowledge, and of capacity, and toward this goal "the whole creation moves." In the school as in the university, the particular aspect of this final objective is open to the choice of the pupil, and may be modified to some degree as he proceeds, although perhaps the most questionable of recent developments has been the abandonment of a hitherto promising tendency to increase the options allowed in the upper levels even of a single institution. The successful introduction of free study groups outside of the program gives some opportunity for special emphasis. Nevertheless, only extreme reformers would propose to discontinue entirely any of the main trunk lines of a pupil's growth in language, literature, history, science, mathematics, and art. In varying proportions these are ever-broadening highways along which fresh knowledge moves continually through earlier associations into larger and firmer forms with as extensive cross-connections as possible.

"Credits" or "hours," or any unit whereby a youth may climb a numerical ladder of achievement, nowhere appear in the process. Term or semester examinations, as the American knows them, for the purpose of checking up fresh information and assigning "marks" do not exist. Each written task is an educative exercise set primarily to develop the intellectual power of the pupil by asking him to incorporate new material

into the old background. Each hour of recitation normally involves close reciprocal response between teacher and pupil; it is an hour in which the pupil's own ideas are systematically reviewed and refreshed and then advanced to a new stage—not the book-shadows of ideas but the ideas themselves. Promotion is the result not of a question-begging mathematical calculation, performed automatically for pupils by the hundred, but of a critical analysis based on long and intimate knowledge of an individual on the part of sympathetic, responsible instructors: "Is this youth fit to proceed?" And graduation, instead of being merely a favorable balance of arbitrary "credits," is rather the demonstrable and demonstrated arrival of a growing mind.

At the university the same process is repeated with the difference that the maturer student now assumes full responsibility for gathering his own material and systematizing his own thinking.

Of all the professional curricula those of the philosophical faculty are least circumscribed, and may best serve to illustrate the general principle of operation. The chief business of this faculty is to prepare teachers for the higher schools. At the outset each candidate defines for himself from an official list a field of study, the required minimum being two major subjects and a minor subject, besides philosophy which is required of all teachers. At any time after four years have passed he may submit himself for examination, but this minimum is rarely ventured. Six to eight years constitute the common duration of university studies.

Having chosen his fields, for example, German, English, and history, or chemistry, biology, and mathematics, the prospective teacher discovers that besides libraries, laboratories, and such tools, two means of education are provided: lectures and seminars. The first, more popular in Germany than in France, present the various bodies of knowledge in comprehensive, systematic form, and are taken in large numbers by the "young semesters" to establish a secure fund of information; the second, consisting of relatively small groups, give opportunity for personal research, criticism, and discussion with the professor on selected topics. Seminars aim in no case to "cover" a subject comprehensively, but rather to show the student *how* to work scientifically within it. They are favored especially by the "old semesters" who are primarily engaged in organizing their ideas. The candidate must give indication of adequate attendance at both types of exercise before he will be admitted for examination.

Progress through this maze of offerings depends wholly on the individual. Attendance is voluntary and uncontrolled, except that, as already stated, the examiners require evidence of a student's good sense in planning his studies. The institution is a vast warehouse of materials on which the student may draw at will. Problems of selection, sequence, and synthesis are themselves the unceasing, ineluctable compulsions that dominate his mind without a moment's intermission throughout this six or eight-year period. The mental initiatives, decisions, retractions, persistencies, and evasions are all his own, and if the native stuff be in him, can hardly fail to produce in the end an individual of extensive intellectual resources and moral vigor.

American critics tend to deplore the "specialization" said to be required of the nineteen-year-old German youth, and to compare it unfavorably with the "general" program of the American college student. But consider for a moment the actual content of a typical required group of subjects. According to the examination syllabus the following must be offered for examination by a candidate for approval as a teacher of German, English, and history. *Prerequisite:* Latin grammar and literature, including Late and Middle Latin, in their relation to German. *In the German major:* Historical and comparative grammar, elements of Gothic, Old and Middle High German, development of Germanic literature with detailed study of special works, German history, German dialects and folklore, German philosophy and fine arts. *In the English major:* Phonetics and pronunciation, scientific mastery of the grammar, historical development of the language from Old English on, mastery of the written and spoken language, general development of the literature, special study of selected works in various periods, English versification, the early and modern history, philosophy, and political institutions of England, and knowledge of the country. Part of the examination is conducted in English. *In the history minor:* Essentials of world history with emphasis on Germany and Prussia, political development of the leading culture peoples, constitutions of the German Empire and of its parts, special study of selected modern historical works, essentials of geography and ethnology. *In philosophy:* Fundamentals of psychology, logic, theory of knowledge, and ethics, special study of selected philosophical problems.

This program as a whole can scarcely be charged with narrowness. Part of the same material might well constitute a "liberal" American curriculum for a bachelor's degree in arts, but it would be broken up into a medley of short units and administered in unrelated doses—five "courses" a term, followed by five tests and fifteen nonforfeitable "credits," after which the carefree American would begin five new "courses" or take a three months' complete mental vacation, his way being worked and his worrying done, if at all, by the professor. The German student, on the other hand, designs and treads each step of the way himself, and brings his six years' labor finally to a focus with the whole mass of ideas untangled, organized, and ready for inspection. The power and will to put one's self through this process successfully, whether in college or university, are in European judgment the best criteria of an intellectual education that have as yet been discovered.

*b. Attitude of the teacher*

The rôle of the German professor is parallel to that of his French colleague. He appears to be less close to the student body than the Frenchman, does much less correction of written work, often none at all, but serves similarly as the fountain of knowledge, advice, and above all of example. In view of the freedom allowed the student, the professor's power of attraction must be genuine. The student may wander widely at first, but sooner or later it behooves him to settle down and select some scholar in

his major field or fields with whom he may come into close personal relations. The professor in turn desires good students, and often takes the seminar for beginners himself, in order to look over and sift the new material. He is his own master as to the organization of his work, but since the war, increasing emphasis has been placed on the seminars, and some professors have divided these into three or even four successive stages. Discrimination is based less on information, which is taken for granted, than on maturing ability to handle materials and ideas in a strictly scientific manner, and the student is often required to prepare a special thesis to prove his qualification for advancement from one stage to another. Needless to say, none of these departmental tests, nor even the general examinations that have been introduced by inter-university agreement at certain intermediate points, as in chemistry, relieve the student of full responsibility in his final examination; they serve solely to justify promotion to advanced work.

No more than in France are German university professors coaches for examination. Their minds are primarily on the *Wissenschaft*. They serve the student by evaluating and criticizing what he chooses to offer them, but chiefly by giving him the opportunity in seminars for intimate association and for observation of how they themselves work. Until his day of reckoning comes they have no official interest either in his stock of information or in his achievement. What he gets, therefore, is his own interpretation of the standards and ideals of German scholarship; if he be acute, he acquires a systematic, comprehensive knowledge of his several branches, together with a secure feeling for the scientific and philosophical foundations on which that knowledge rests. An accurate dealing with content is the chief object; form is distinctly secondary. Free presentations, with the conscious effort, such as is conspicuous in French universities, to give subtle ideas a skilful organization and a vehicle of discriminating taste, appear to be rare. One feels that the mere industrious plodder benefits too easily by this system, that the man of power, insight, and brilliant gifts is relatively at a disadvantage. Certainly the qualities necessary in a successful teacher must await the further selection of the apprentice years.

#### 4. *Proving the results*

The principle of a comprehensive final examination obtains in Germany as in France, and the subsequent status of the individual depends altogether upon the issue. Certain features of the German procedure deserve special attention.

##### *a. Examinations in German schools*

In the *Reifeprüfung* at the close of the secondary school period the pupil is examined in both written and oral form by a committee consisting of all of his teachers in the final year,[1] together with the head of the school and an official inspector. The

[1] These five or six instructors have probably known their pupils for nine years, and have been closely associated with them for the two or three final years of their course. Before admission to examination each pupil is subjected by them collectively to a thorough analysis which becomes part of the official record, and includes a story of the pupil's mental and moral development in school and an estimate of his power to do independent mental work. De-

fact that the examiners know the candidate thoroughly and sympathetically, and have studied him well before admitting him to the test goes far to ensure a fair and considerate proof; the further fact that a teacher questions his pupils not only in the presence of all the other teachers of the institution, but also usually under the scrutiny of an expert outside critic, places the teacher himself in a position that brings out and maintains his best qualities and precludes a "soft" examination.

Except in ancient languages the written test in each of the four subjects examined is invariably a single theme or exercise out of a restricted field of choice: "Faust, Wagner, Mephistopheles—three Scholars (according to Goethe)"; "Was Socrates a good citizen?"; "The Results of the Discovery of America"; "The Education of School and the Education of Life"; "The Parable of the Prodigal Son in Painting"; "The Origins of the French Theatre" (in French); "The Growth of the English Language" (in English). For from three to five hours the candidate labors with his topic and does his utmost to display his resources in pertinent knowledge, in power of analysis and logical construction, in finding appropriately related meanings and points of view, in weighing significant or specious aspects, in personal insight and conviction, in feeling for style, proportion, and fitness of thought and phrase—in short, in the elements of an intelligence bred by long experience in dealing fruitfully with the expanding ideas of a familiar field.

It is this essential end-result of education that the German school seeks to test. According to some of the official directions for examination "the exercises [set for the written test] should reveal, not knowledge of detail, but intellectual maturity . . . the candidate should be able to set forth a moderately difficult train of thought in clear, convincing, and technically perfect German . . . to express in a modern foreign language a free but accurate two or three-page paraphrase of a foreign text when read to him . . . to show that he can grasp historical questions and, with all necessary sources, maps, statistics, or other aids, penetrate clearly and intelligibly portray the larger historical sequences . . . attack new problems in mathematics and, with tables, formulas, slide rules, and so forth, supplied to him, prove that he can point the way to a correct solution."

The spirit of these directions actually prevails. The following official comment on a typical essay, "Our Culture as the Heir of the Greco-Roman World," given the second of the four customary pass ratings, illustrates the examiner's point of view:

tails are given as to his sense acuteness, power of observation, clearness and quickness of comprehension, judgment, inventiveness, imagination, powers of expression, special gifts and special activities in and out of school, success in study circles, sport, and student life, leadership, etc. Personal defects, financial and social conditions at home, and future intentions as to occupation, are all included. Each teacher is pledged to judge the pupil's fitness for examination not solely on the basis of work done in his own classes, but in the light of his whole performance, and to this end is required to visit other classes.

The written examination is rated first by the teachers of the subject concerned and is then sent to all the other members of the examining committee who must agree or take exception; the oral is carried through before the entire committee who agree immediately thereafter on the result. A record is kept that shows clearly the course of the oral examination and serves to justify the rating. The final decision is framed by joint consideration and instead of being analyzed mathematically must be a direct judgment on the student's performance. To exclude the possibility of a mechanical decision where mental and moral qualities are involved, any form of mathematical calculation is forbidden.

"The writer [a girl of eighteen] has laid chief emphasis on bringing to light the various channels through which ancient culture has reached us, and has carefully appraised our capacity, at various periods, for assimilating it. She has thereby grasped and dealt with the deeper meaning of the theme instead of being content with a superficial description of what we to-day owe to the ancient world. The treatment indicates a thoroughly digested and independent historical knowledge, together with a highly intelligent constructive talent, and is clothed throughout in fluent, appropriate language."

The method of the oral examination in German schools follows that of the written test. The candidate is assigned a major exercise which, after due time for reflection, he is asked to handle in free exposition, using what texts, maps, drawings, or other aids he may require. The examiners note particularly "his intellectual grasp, his judgment, his comprehension of the whole field with which he deals, and his power of presentation." In case the candidate cannot proceed, the examiner proposes another problem which he seeks to induce the candidate to discuss in its various aspects, but always as a single unified problem involving more or less intricate relationships that make thinking indispensable. The instructions warn: "An arbitrary succession of questions having no internal coherence or connection should in any case be avoided." Is it possible that these examiners do not understand that every well-bred examination should consist of ten distinct questions, each of two or five separate parts and each question having a value of ten credits?

Hitherto the oral examination in the secondary schools has been regarded as an opportunity to offset poor work in one subject with a good performance in another, and pupils with high ratings in the written examination have been excused. Hereafter (1927) every pupil is to be examined orally in any subjects that the committee may select, but chiefly in a field which he himself chooses in advance. To one branch, therefore, he will give special attention with this in view.

This is clearly a step further in the direction indicated above. By the pupil's choice, that field is taken up in which he may be presumed to be most fully informed. The examination therefore can be devoted the more successfully to discovering how his mind behaves in the higher processes; in other words to revealing his power to think. The new requirement is welcomed among schoolmen because of its educative value with good students. "It is the gifted boy who easily satisfies the school's requirements and executes the written examination without effort, who will profit by the inner discipline resulting from the oral examination."[1]

*b. Contrast with American practice*

Such tasks as these differ considerably from our habitual conception of a final examination—a fact that may help to explain why a final school examination scarcely exists with us. When the American situation is placed against this unusual perspective

[1] *Deutsche Allgemeine Zeitung*, 8 July, 1926.

certain elements of contrast leap to view at once. Our notions of a smoothly working intelligence as the conscious product of the motions through which we put our students are so hazy that we scarcely have the courage to define it, much less test it. Many of our teachers are themselves insufficiently schooled; they fail to recognize intelligence when they meet it; they fear doing injustice to the candidate in attempting to criticize processes that they have not consciously cultivated and that are not clear to themselves; they therefore fall back on the easy method of checking up information. "Knowing" *versus* "not knowing" is as easy as holding the spelling-book, and is fatally plausible in American schools; while a thoughtful *use* of knowledge on the part of pupils requires as much higher intelligence for its guidance and evaluation as it does for its production.

Furthermore, our piecemeal curricula usually make it impossible even for the best of teachers to deal long enough and intimately enough with a pupil in a given subject to allow an intelligence unmistakably to display its real qualities. This is certainly out of the question when a pupil is given a great variety of detached elementary subjects or fails to build up the connections between the parts of subjects in which he is permitted to advance. It is equally impossible when teachers and pupils know and see each other for but short periods during one or two semesters, as in most of our large high schools and colleges.

Doubtless the most potent element of all in the contrast between the European schools and ours is the fact that, although our high school classes, and even some college classes, are not far above the average ability of the youthful population, we are, nevertheless, theoretically seeking from them intellectual results that can only reasonably be expected of a selected portion of that population. Every older nation has long since discovered that such results can be secured only through segregation for instruction according to intellectual capacity. Really to test for intelligence under present conditions would mean to disqualify a large proportion of the class—a step which is naturally impossible. As our attendance has increased, our actual procedure, instead of being differentiated as to quality, has been kept unitary, and has been keyed nearer and nearer to the average mentality with which we have had to deal.

In the task of testing transient information the American teacher is undeniably efficient. We busy ourselves in improving the machinery for this purpose through multiple question tests and the like, in order that no fact may escape. But while much of this is useful as a preliminary, we are leading our teachers further and further from the concern which in Europe is central in the relation between the teacher and his charge. That concern is not with the question "What facts can this pupil give back?" but with the question "Can he think accurately and resourcefully in this field of ideas?" We hopefully put all possible ingredients helter-skelter into the hopper and trust to luck for the result. The European studies the significance of what comes out and modifies the process accordingly.

*c. Examinations in German universities*

The German university examinations are of the same twofold nature as in France and, like the French, present on a much maturer level the same sort of intellectual demands that characterize the earlier secondary examination. The state examination for those who expect to teach in secondary schools may be used for illustration.

The written portions of this exercise—the two theses, major and minor—are not supervised pieces of writing limited to a few hours, as in France; respectively three and two months are allowed for their preparation after the subjects have been assigned by the examiner. The longer is in the field of the preferred major, and if this be an ancient or modern language, the thesis must be written in Latin or in the language concerned. The shorter may be chosen from the second major or from philosophy. These papers are read and judged by at least two of the three examiners in each group. In the languages three hours of supervised writing in the particular language is required, and a supervised written test may be assigned in any subject at the discretion of the examiners. Laboratory work in the sciences may be vouched for by the university authority where it was done; otherwise it too is tested as a part of the examination.

The purpose of the thesis is chiefly to prove that the student is competent to arrive at independent judgments of a sound scientific character, and incidentally to show that he can arrange his ideas and set them forth appropriately. Since the work is not done under supervision, the main burden of confirmation falls upon the oral tests. Before a group of three examiners, of whom the chairman is regularly a school inspector, the student is examined for an hour each in his two major subjects and for a somewhat shorter period in the minor subject and in philosophy. One examiner keeps a running record from which the course of the test can be clearly reviewed. In case of disagreement the chairman has the deciding voice.

Some of the examiners are known to the students in advance, and most candidates seek to make a favorable impression on their questioners by taking their chief seminars. Otherwise the course of procedure cannot be foreseen. It is generally believed that substantial justice is secured, though in individual cases there is the usual dissatisfaction that attends the settlement of important personal interests through human referees.

*5. The teacher the supreme consideration*

Germany and France agree in making the selection and training of their teachers their supreme concern not only in theory but in fact. The methods they employ, however, to accomplish this all-important and delicate task constitute the most striking divergence between the two systems of education.

Three aspects of this divergence are particularly noteworthy.

*a.* France recognizes broadly two grades of teachers for essentially the same kind of work—the *licencié* and the *agrégé*. Germany admits but one grade, thus greatly increasing the solidarity of the profession. It is assumed that a candidate either is or

is not fit to teach. Once admitted he stands on a par with all the rest and may move on to the highest posts.

*b.* France exercises for her upper group, the *agrégés*, a selection that is pitiless. In a competitive test of certain qualities highly desirable in a teacher, only so many men and women are chosen each year as are considered necessary to fix and maintain the tone of the secondary system. Germany secures a training spread over a broader field, and at its close tests only the knowledge and ability of the candidate to do scientific work. Any one is admitted who attains a given level in this type of ability, and neither in university work nor in the examination is any attention paid to other qualities that are indispensable for successful teaching.

*c.* In France the little group that have been preëminent in the oral demonstrations of the *agrégation* are assigned to the vacant posts among the *lycées*, and thereafter work out their own salvation without supervision or criticism except as judgment is passed year after year by the three or four officials who control their promotion.

In Germany the university examination is but a prelude to the real selective process. This is exercised by the schools themselves in the form of a two-year apprenticeship conducted by chosen directors and teachers of proved ability. In groups of six or eight the candidates devote their full time to the specific problems of teaching, taking up general considerations with the director and the teaching of particular subjects with a senior teacher in the corresponding department. For these students the entire institution is an open laboratory—a fact, by the way, that exerts an extraordinarily wholesome effect on each school that is thus utilized. The work of all the teachers is observed and discussed by the candidates both from theoretical and from practical standpoints. Little by little they are entrusted with classwork; in the second year they are assigned short units of independent instruction always under the frank criticism of their teachers and of their own colleagues.

These two years of practical work are brought to a close with a thesis dealing with a pedagogical subject, and with lessons on a prescribed subject taught to a regular class of unknown pupils. The jury in whose presence the instruction is given, takes into consideration also a subsequent oral examination and the candidate's record. Naturally at this stage elements ignored in the university become decisive: power to assume the pupil's point of view in adapting material to a given age, or in adjusting it to his learning process as a whole and to the work of other teachers; skill in making wide knowledge effective in simple applications that stimulate and instruct, in avoiding erudition while provoking interest and respect for valid intellectual processes; proof, in short, that the candidate can master and lead young minds as well as develop his own. Aside from technical knowledge and success, the student's physical fitness and vigor, fluent command of language, an alert reaction to class situations, and an agreeable manner and address all combine to turn the scale.

That the selection is no empty formality is proved by the fact that in certain of these school-seminars from one-third to one-half of the candidates of recent years

have been rejected. In 1925 the elimination for all of Prussia was about twenty-two per cent. For a man who has spent eight years in preparation such a verdict is little short of tragic. Even the accepted candidate is now assigned to a waiting-list, where a final scrutiny of his work as a substitute teacher may lead to immediate appointment or may defer a permanent position for several years.

Thus, although dispensing with the initial competition which proves so effective in France, Prussia rigorously selects her schoolmasters, and does so furthermore, not on the score of general intellectual distinction but in direct relation to their proved capacities for the actual tasks they have to perform. This counts powerfully in the result. Apart from the unity of professional status already mentioned, a German school staff is remarkable for its individual and collective consciousness of definite aims and of rational methods, for its power of pupil analysis and discriminating appraisal, and for its appreciation of the relations and significance of the educational process in all its parts. To this result the practice of training the next generation of teachers in the schools themselves and among the present workers has contributed largely. In going from class to class the visitor feels at most points that he is listening to a well-reasoned performance not solely of that teacher and class but of the school as a whole; the exercise, while completely individual in detail, springs clearly out of agreement in the essential principles and thereby greatly economizes the pupil's effort and attention. Throughout their careers most of these men are unremittingly studying their job both directly and through the interpretation given it by their associates and superiors. Probably nowhere else in the educational world do groups of highly developed personalities labor so skilfully as teams at a great spiritual task.[1]

During Easter week, 1926, the teachers of the higher schools of Prussia conducted at their headquarters in Berlin, a "clinic" to elucidate the feasibility of the *Arbeitsunterricht* (instruction through the self-activity of the pupil) which is now under general discussion in Germany. For this purpose a procedure was followed that is so foreign to our casual conceptions of instruction as to seem absurd. Yet under conditions where pupils and teachers are habituated to a rigorous and consistent intellectual

[1] The genius of the German school seminar for teachers is peculiar, and inheres in elements that are purely qualitative. It has been copied in England without success, and unless introduced with the utmost care would certainly fail in this country for the same reasons. The institution in Germany rests on the following significant facts. Contrary to American practice, school principals and their immediate superiors, the *Oberschulräte*, are promoted to their administrative and supervisory positions almost solely because of long experience and distinguished success as teachers. By and large they are actually, as well as theoretically, the deans of their staffs in the capacity for giving skilful instruction. Furthermore, they believe that good theory lies behind good teaching, that, given good material, skill can be enormously increased by analysis and training in problems and processes, and especially that a young teacher will become a better team-worker in a joint enterprise if he knows what others are doing, how and why they do it, and reaps the benefit of their experience in developing his own technique. To such men, with their older assistants of like mind, the seminar, though extremely arduous and time taking, has come gradually to occupy a position of first-class importance. It serves in a way one purpose of graduate work in an American college; namely, that of keeping the minds of the professors open and active on their own problems and of inducing fresh criticism.

The present status of this apprentice training is of course a result of long, slow growth. Time was when suitable directors for conducting it were hard to find, when teachers failed to take it seriously and candidates often wasted their time. In those days the elementary schoolmaster in Germany knew that he was a better teacher than the *Oberlehrer* (now *Studienrat*); to-day he acknowledges that the higher schools have outstripped him in the thoroughness and practical results of their technique. The seminars effectively transmit to the teaching world the advances made in the universities; few school men now in service, in spite of the heavy burden, would be willing to have the universities themselves assume the technical training of their future associates.

discipline it is employed without embarrassment — even without much self-consciousness; that it often produces most illuminating results any one who has witnessed it will testify. For several days volunteer directors and professors successively brought in and taught classes of pupils of different ages in different subjects for the observation of hundreds of their colleagues from all over Prussia. The teacher in each case stated his purpose and later estimated the results secured. The ensuing criticism from the audience was unsparing, and shed an interesting side-light on the theory that a system of centralized organization necessarily hampers the liberty and initiative of the individual instructor. Annual gatherings of directors by themselves are frequently devoted to laboratory exercises of the same description, since the heads of German schools are uniformly expert teachers and supervisors of teachers. Can an American, by any feat of his imagination, picture the college deans and professors, even of the best American institutions, assembling to witness, much less to offer, a demonstration of how literature should be taught to sophomores? Absorbed in problems of administration, we try thus to secure results obtainable only from free, competent instruction. These teachers agree on the relatively unimportant details of administration and then bend their energies to the essential problem, namely, how to teach.

In the case of Germany, as of France, no attempt has been made to review the educational system as a whole. The features selected for discussion illustrate the inherent reasonableness or logical consistency of certain principles of method that appear commendable regardless of the use to which they may from time to time be put. It is from the same point of view that we shall now consider the practice of the English, a people much more closely related to us, educationally, than either the French or the Germans, and among whom we should expect to discover much closer parallels with ourselves.

### C. The Education of Intellectual Workers in England

The waters of the English Channel divide two widely different domains of educational tradition, procedure, and ideal. France and Germany are here confronted with a neighbor which, lacking the elaborate organization of social and intellectual life to be found on the Continent, has perhaps on that account made social control the basic feature of its educational creed and deals with it in terms of "character." Intellectualism in education is thus only one of several considerations. The art of personal relations, of subordination and command, and a working knowledge of all the intangible forces and amenities of human intercourse weigh quite as heavily.

This national philosophy makes the English process of education doubly interesting to the American observer. Having himself a minimum of social and political machinery and an unlimited opportunity for personal venture and experiment, the American feels that his ultimate salvation depends on making men and women voluntarily tolerant and coöperating elements in a common purpose and view of life. To attain this result he depends largely on education, and sees in England not only the

source of many of his own traditions but an educational problem more nearly like his own than is to be found elsewhere among the older communities.

1. *The unity of English higher education*

A casual survey of institutions for secondary and higher education in England at first bewilders with its apparent confusion one coming thither from the Continent. In methods, nomenclature, standards, and objectives, the schools differ almost as completely among themselves as they differ from their foreign neighbors. Not infrequently one feels that the one feature which they most clearly have in common is that of mutual diversity. In the local school system from bottom to top, including even elementary schools, each institution is largely the projection of its own headmaster, who operates always with his eye on a mass of unique traditions, sometimes very ancient. Admission to the university, elsewhere subject to the uniform regulations suitable for a compact and homogeneous community, is here guarded by eight independent examining authorities, each varying slightly from the others and jealous of its privileges and particularly of its fees, and yet "coördinated" by a Secondary Schools Examination Council so as to discharge as nearly as possible identical functions. Again, among the universities themselves Oxford and Cambridge on the one hand and London and Liverpool on the other differ as do no similar American groups. To a continental mind they would seem incongruous.

Yet amid this riot of diversity it is surprising presently to discover that in the total progress of education as it affects the good student, there actually is a profounder unity, a more discriminating individual aim, and a quicker response of institutional machinery to that aim, than in either of the countries we have reviewed. This results from the fact that in England instead of proceeding "company front," as it were, in continental fashion, education below the university has itself been so individualized that each student finds himself one of a party deployed as skirmishers in such a manner that his speed and progress may be self-regulated. The general custom of regrouping pupils for instruction in "sets" according to their ability in different subjects; of advancing them from form to form on the work of a single term in cases where their work justifies it; of selecting and, with much personal attention, grooming able pupils for scholarships; all this serves to develop the pupil to his maximum stride toward a goal that he soon comes to regard as peculiarly his own.

The tutorial system, usually considered to be characteristic of Oxford and Cambridge, actually operates all along the line. The schools are small when judged by American standards.[1] Entering the school between eleven and thirteen years of age, the pupil passes the first examination at sixteen, and thereafter becomes one of a small group who during two years at least remain in close and continuous contact with the best instructors the school possesses. After a second examination at eighteen the step is easy from such tutelage to a college at an older university and into

[1] Tax-supported schools have an average attendance of less than three hundred, while the endowed schools average somewhat over twice that number with an age-spread of six or seven years. See page 20.

similar relations with a don. The educational career of a typical university man thus resolves itself into four periods, each terminated by an examination: a preliminary and a final period in school and the same in the university. The kind of personal intellectual responsibility of the student, which in American institutions is likely to be felt first in graduate work, here pervades the whole collegiate course and reaches down into the schools, just as the continuous personal supervision of a competent intellectual adviser, which has almost disappeared from American schools and colleges, reaches up through the schools into the university. The whole process has the unity of continuous harmonious progress under similar intellectual conditions from first to last, yet it is an individual rather than a mass affair, and the apparent diversity in external features accentuates that fact. The university dominates the situation completely through its examinations and through the traditions of the teachers whom it has prepared. The first school examination becomes, for those who proceed, a matriculation examination, while the second, when properly planned, may in some cases anticipate the intermediate examination of the university. In municipal universities the residential feature and the formal tutorial element drop out with obvious loss, but otherwise the system is unchanged.

*2. Advantages of a coherent progression in education*

Exceptional economy and flexibility are the outstanding characteristics of education arranged in this manner. The progress of a capable student who desires to work is rapid and always definitely aimed; being spared delay for which he is not responsible, he comes early to understand that education is a personal matter of intellectual equipment and quality, not a question of a multitude of little things to be *done* in exchange for credits.

The years preparatory to the first examination at sixteen are devoted to a general training that, except for certain language choices, is almost identical for all pupils. Together with drawing and music in the early years, English, one or more foreign languages, mathematics, science, history, and scripture undergo an uninterrupted and parallel development, and constitute the foundation for serious intellectual work later. After examination in these subjects the pupil's special fitness or inclination is consulted by permitting him to choose between certain broad divisions of the curriculum, such as the classics, or modern languages, or science and mathematics, or history and economics, each with supplementary work in outlying subjects. This is a two-year period of what might be termed semi-specialization and is usually brought to a close at about the age of eighteen by the second examination.

The precise nature of this gradual concentration in preparing for the university after the first foundation has been laid, may be fairly indicated by citing the course given at the Battersea County Secondary School, London.[1] It prepares for the School

[1] The course is reproduced with the kind permission of the Headmaster, Mr. Arnold Smith, who organized it. Details have since been somewhat modified from the original plan as given here, but the course is essentially the same.

of Economics in the University of London, where scholarships are provided for all boys who pass the examination.

The course continues through the two years after the first examination with but slight variations from the weekly period requirement given below in parenthesis:

Political history in broad outline from the earliest times (1)
Economic and social history, chiefly of England (3½)
British Constitution and public administration (3½)
Geography of the world in its economic and social aspects (3)
English literature since 1750, with the underlying idea of reflecting the various modes of thought about man's place in society (6)
French literature dealing with the social and political life of France in the eighteenth and nineteenth centuries (3)
Economics: a study of the meaning and scope of the fundamental economic conceptions (3)
Art, including the development of architecture, arts, and crafts, and the artistic planning and equipment of cities (3½)
Mathematics, including algebra, geometry, trigonometry, and statistics (4)

Here is a program of thirty periods per week containing some of the richest material available for human education organized about a central idea of engrossing interest — the development and significance of human institutions. Although sufficiently varied to furnish the maximum opportunity for good teachers to develop in two years a body of instructive ideas covering a wide area of human life, its elements are yet so interrelated that, with the exception of certain parts of mathematics, nothing appears that does not in some way illustrate or explain the rest. Natural science is only formally missing. These students, having already had five years of science, including nature study, physics, and chemistry, are in a position to appreciate the economic and social applications of science that appear constantly in their studies.

When visited, this course was pursued by a group of six selected boys in the first year and eight in the second. They were excellently led and were doing practically individual work for the instructor.

In the old endowed schools these years (lower and upper sixth) are better filled. Thus Winchester College, out of 466 boys in all, had 92 in the sixth forms in July, 1925. They were distributed in groups of from 20 to 30 boys, each group emphasizing the classics, history, or science. Such groupings are very loose. The average boy stays perhaps two years in these forms, but exceptional scholars pass their first examinations early enough to enjoy three or three and one-half years of almost tutorial studies before going up to the university.

In the university the student, aged nineteen to twenty-two, has a choice, according to his type of mind, between devoting all of his attention to some single subject such as chemistry, or dealing with a vast and comprehensive field such as is contemplated at Oxford, for example, in the classical school of *Literae Humaniores*, or in its modern counterpart, which combines philosophy, political science, economics, and some

history. He spends a year (or two) in preliminary studies leading to "moderations" at Oxford, or to the examination in Part I of a Tripos at Cambridge, and then proceeds with advanced studies in the same, or in some quite different field, coming up for a final examination and classification at the end of three or four years according to the kind of work he has chosen or the scope of his plans.

An intellectual sequence of this sort commends itself as coherent and progressive. There is no duplication or repetition in proceeding from one period to the next. Each mind begins where it left off, and, in the university at least, is its own arbiter in the selection and arrangement of all of its work. How different is the situation with us! Annually large numbers of high school students, for example, having taken biology or physics or chemistry, desire or are required to proceed with it in college. To do so, however, they must first repeat their elementary work in class in company with others who have taken no science whatever. A formality so rigid could never arise under English conditions. It is but one of many instances of the regimentation to which we subject the intrinsically individual process of education. Enmeshed in a fixed machinery of years, terms, hours, classes, assignments, tests, and credits, we inculcate in the pupil the idea that education necessarily involves such things. The American student has to leave school or college before he discovers with a shock that real education is after all a solitary affair between his mind and himself. The European cannot fail to discern this lonely relationship early in his educational career and profit by it accordingly.

### *3. The English perspective in education*

Like other Europeans, the Englishman sees in his education a problem that is essentially architectural — an intellectual structure to be reared, rather than an executive program of unrelated tasks to be discharged, checked up, and forgotten. Ideas must be retained, worked over, and knit together into some sort of whole before education may be said to have taken place. He believes that only such considerable units furnish a secure basis for further education, and that the power to construct them is the essential characteristic of a trained intellect.

#### *a. The student's ruling motive*

The English schoolboy bent upon an education considers his pre-university course, not in terms of years, but as a twofold unit, for which the first and second examinations respectively furnish the rough designs to be shaped and elaborated by his thinking. Once begun, practically all subjects are continuous or sequential through the first five years, or until the first examination. The material acquired carries over from year to year as a matter of course. In a boy's unmethodical rise from form to form or from "set" to "set," the constant determining criterion is not the extent to which he completes a formal program of itemized requirements for a given year, but rather his own mental growth with relation to the examination pattern that

floats before his eyes and the effect with which a given school assignment may at the time contribute to it. Vacations do not mean, as with us, that the mental machinery ceases to operate; the project is always there, and with maturing years the pupil accepts increasingly his own responsibility for the final result. He is thus early convinced also of the personal nature of his education. Naturally the fact that a great number of good pupils are enjoying scholarships in schools, and that still more are hoping to win them at the university by success in their examinations gives this personal stimulus an added thrust.

At the university the student immediately faces a decision as to the nature of his course. After his first school examination he has chosen classics, or modern languages, or science and mathematics, or perhaps economics. At the older universities where he is free to remain in residence for either three or four years, he now has two further choices to make,[1] one for the preliminary[2] examination and one for the final; or, at Cambridge, he may spend three years preparing for a single partial Tripos examination on which he takes his degree. Each Tripos, or honor examination, at Cambridge, has an organization and regulations peculiar to itself. One student's procedure may, therefore, vary greatly from another's. Part I of the history Tripos taken after two years' work may be followed by Part II of the law Tripos in the third or fourth year. Section A of the English Tripos may be followed by Part I of the moral sciences Tripos. One candidate may take the first part of the mathematics Tripos and the first part of the science Tripos. Another may take in three or four years the whole natural sciences Tripos; that is, the fundamentals of three sciences at the first examination and advanced work in a single science at the second.

At Oxford the preliminary examination may be taken after either one or two years in a variety of subjects or combinations of subjects. Thereupon the student selects his objective for the final honors examination, and not necessarily in the field of his preliminary examination. The degree of specialization or of comprehensiveness in these options varies from a subject like chemistry, to which, with physics in the preliminaries, one may devote four full years, to the ancient "Greats" course, which covers not only all important features of the Greek and Roman civilizations, but also the whole stream of philosophy flowing out of them to the present time. The question of extension *versus* intension, which with us agitates the student throughout his course, is here determined with one or at most two comprehensive choices. The student finds it far easier to gratify his known interests when confronted with a group of broadly significant intellectual goals, than when asked from term to term to elect unrelated fragments.

[1] Since we are concerned here with students doing distinctively intellectual work, the so-called "pass" course in English universities has been left out of account. A brief description of it will be found on page 91.

[2] "Moderations" and the "preliminary" examination are the terms used at Oxford for an intermediate examination taken after one or two years' attendance. At Cambridge the same is usually Part I of some Tripos.

*A typical university curriculum*

To a stranger the possibilities are so various and so confusing as to demand concrete illustration. Had a boy from the advanced course at Battersea, described above, won an Oxford scholarship instead of going to the London School of Economics, he might well have selected for his first year's work the "preliminary" examination in modern history. Aside from the required paper in scripture or its substitute, this intermediate test consisted in the winter term of 1926 of seven three-hour written examinations as follows: Two in the outlines of European history, 800 A.D. to 1789; two on original historical texts: (*a*) *Gesta Francorum* or Aristotle's *Politics*, Books I and III, and (*b*) Philippe de Commines, *Mémoires*, or Voltaire, *Siècle de Louis XIV*, chapters 1–24; two on sight translation from any two of the following languages: Latin, Greek, French, German, Italian; and one on the elements of economic theory as contained in Nicholson's *Elements of Political Economy*. Here the chief business is clearly the historical sequence from 800 to 1789 in Europe, and the student is expected to sweep backward and forward over that period from every significant point of view — political, social, economic, literary, scientific, and artistic — until its main currents are explained and related.

Having passed the preliminary examination, our candidate would select at once an "honour school" on which to spend the next two years and the intervening vacations. Any youth pursuing the economics course in the secondary school in the hope of going to Oxford would doubtless already have before his mind the Oxford "Honour School of Philosophy, Politics, and Economics," the newest of the ten existing honor schools. The central idea of the "school" is "the study of the structure and the philosophical, political, and economic principles of Modern Society." The entire syllabus must be prepared, but special attention may be given to any one of the three main divisions. In the written examination a total of ten papers are divided as follows:

1. The history of philosophy from Descartes with first-hand knowlege of some of the principal writings.
2. Moral and political philosophy— a knowledge of political theory, of its history, and of modern political organization.

3 & 4. Economic theory, its history, and its application to the most important aspects of modern economic conditions.

5. Political and constitutional history of the British Empire, 1760–1914, with related European and American history.
6. British social and economic history since 1760 with special knowledge of (*a*) the history of agriculture, or (*b*) the domestic and factory system, or (*c*) trade policy and transport, or (*d*) industrial combinations.

7 & 8. A group of prescribed books in two out of the three main divisions, e.g., Philosophy: Kant's *Kritik der reinen Vernunft* and *Grundlegung zur Metaphysik der Sitten* in the original text. Political economy: Smith's *Wealth of Nations;* Ricardo's works; Marx's *Capital*, vol. i, cc. 1–14;

Jevons's *The Theory of Political Economy;* List's *The National System of Political Economy.* Political philosophy: [a list of eight works].

9. A special subject chosen from one of the three main divisions, such as "The Development of International Relations since 1815," in Politics.
10. Sight translations from two of the following languages: French, German, and Italian.

The oral examination covers a portion of the same territory at the discretion of the examiner.

The initial study of such a syllabus (much extended in the original) gives the clear-headed student a fairly well-defined outline conception of his task. His business is to fill it in much in the spirit of our better candidates for the doctorate. He sees from the outset what it is all about, and as the picture lives with him month after month the satisfaction of exploration and mastery gradually takes possession of him; unknown personalities, ideas, and tendencies gather form and significance because of the innumerable cross-relationships that do in fact exist and bind things together. These come to consciousness only when a large and complicated field of thought is freely contemplated over a prolonged period. It is from relating and explaining phenomena that a sound intellect derives its keenest pleasure and profit. The program given above constitutes in itself an extraordinary challenge of just that sort, and a mind that at all possesses the capacity for sustained intellectual work can hardly fail to be stirred and dominated by it.

Thus at the beginning of each of the two stages of his university career the English student hangs up before his mental vision a clearly elaborated picture of the entire end to be attained. Nothing that he does need be purposeless. No teacher intrudes arbitrary demands between him and his goal; his mind moves forward directly, viewing steadily a destination that is always redefining itself more clearly as knowlege and power increase. College sessions come and go almost indifferently; for him they contain neither beginning nor ending. Lectures, which are attended not for their formal value in credits, but for their actual value in instruction, are ignored when they are found not to serve their purpose. One item of terminology strikingly testifies to the point of view. The American student has his mind on the credit units that the college requires: he says, "I am carrying sixteen hours," and leaves unspecified the amount of study or manoeuvring that is necessary to put this credit on the books. The English student likewise puts the emphasis where he finds it: he habitually estimates: "I am reading six hours a day," and mentions neither lectures nor tutorial conferences. The American, always tremendously busy with the crowding demands made in his courses, bewails the fact that he has no time to think; the Englishman has apparently nothing to do but think, and the way in which his problem is stated compels him to do so. "Vacations," when one can join a "reading party" with a congenial don, or get off alone with one's books, are most precious; at such times serious thinking is cumulative and undisturbed.

"Full term" consists of eight or nine weeks three times per year. At Oxford attendance during six weeks of each term is required. In a sense these eighteen weeks are rather an interruption than a promotion of study. "Do not let your college work interfere with your education" is in effect the official warning: "In the interests of the students themselves it is not desirable unduly to prolong the three regular terms, when debating and other societies, organized athletics and other events and interests, political and philanthropic and intellectual, valuable in themselves as part of education, infringe on the hours of solitary study."[1]

Two calendar years are, of course, all too short, but at their close a serious student will have built for himself an intellectual home fully representative of his personal quality. He repairs to it thereafter with confidence and with somewhat of the warm feeling with which Longfellow surveyed the "cathedral" of Dante's epics. Englishmen who similarly reconstruct in their minds the old "Greats" course at Oxford have for it a sentiment that is close to reverence.

Through long persistence and through association with great scholars who have tutored, lectured, or examined, these "schools"[2] or examination patterns have acquired a personality of their own wholly lacking in our more fluid "courses." One does not take—one *enters* them and proceeds, with certain general directions, to appreciate and interpret anew an intellectual fabric that preceding generations have created. Instead of taking only elements that appeal on special grounds, one must deal with the whole as a substantial problem of intellectual enquiry. Such a conception makes strongly for a finished result. A partial course, being fruitless, receives no recognition by the university. If one begins one must go through, and one is disinclined to begin this sort of task unless disposed to succeed. There is therefore no such appalling student mortality as with us. Data for 1909 furnished to the Royal Commission on Oxford and Cambridge Universities show that in over one-half of the forty-two colleges reporting, from four to sixteen per cent of the entering students left with their college careers unfinished.[3] Exact figures for later years are not available, but college fellows at Oxford who have watched carefully the enrollment at their particular colleges place the proportion at less than fifteen per cent.

*A fixed purpose* versus *aimlessness*

The noteworthy trait of such a system as is here described is its lucidity. At each of four successive stages the English boy with his foot on the threshold knows whither he is bound and what lies beyond. His task is presented to him in such form as to inspire him intellectually if he be susceptible to such inspiration; if not, the inference is that he does not belong in the university. This is surely in singular contrast with the conditions that prevail at almost every step of the American educational

[1] Royal Commission on Oxford and Cambridge Universities, Report, 1922, p. 51.

[2] At Oxford the ten honor schools are *Literae Humaniores*, Mathematics, Natural Science, Jurisprudence, Modern History, Theology, Oriental Studies, English Language and Literature, Modern Languages, and Philosophy, Politics, and Economics.

[3] *Ibid.*, pp. 183–184 of Appendices.

career. Among us it is a matter of common remark that an able boy with mind really set on becoming a physician or lawyer or engineer works with better spirit than the pupil of the same ability but without vocational motive. It is perhaps not so often perceived that in the best cases the vocational spur simply incites the mind to define sharply and for the first time an intellectual objective which then occupies the field quite to the exclusion of any mere vocational impulse. A capable student sets his course for a vocation — medicine, for example — and proceeds out of curiosity to discover what that implies; presently, instead of studying because he hopes to earn, he finds that the intellectual satisfactions of dealing constructively with an extraordinary group of sciences are compelling him to devote his life to them.

When the vocational motive is vague or lacking, the American pupil-student, except in rare cases, moves habitually in an impenetrable fog. Why should not outside activities receive most of his attention? With native curiosity and wholesome optimism he obediently starts, speeds up, stops, and waits vacuous for the next term, with all the waste of momentum inherent in such an intermittent system. The following semester's electives, to say nothing of the following year, loom up as territory charted only by an all-wise faculty, while the ideas gleaned from the previous semester's study fade surely, though often reluctantly, into oblivion. Three local essays, reports on a half-dozen books, and a test on the lectures may constitute the credit requirements in one course. Multiply these by three or five and you have the "intellectual aims" of one semester; by twenty-four or forty and you plumb the entire college program, most of it at the original level. It is all a matter rather of acreage than of depth. A multitude drop out who never would have started could they have measured themselves against an integral four-year job ahead, but are willing to sample college life to "see what it is like" when it can be cut off by the yard. Others appear to weary of an experience that promises only more of the same thing. Invincible and ruthless minds gain something, often a great deal, but on the whole the process is a close parallel to our American preference for diffusive periodicals in place of consecutive reading. The man who lays out a scheme of ideas and tracks them down aggressively wherever they can be brought to light belongs by analogy to Europe; our scheme of education does not favor that type of mind. Who can doubt that this sausaging of information in jealously separated moulds by which we arrest an inquiring spirit and keep it playing constantly on the surface of its resources is responsible, in part at least, for the student apathy with which intellectual interests are now regarded in American colleges?

*Is the English curriculum too specialized?*

The English system of fixed comprehensive objectives is sometimes criticized as narrow. In certain cases this charge seems to be justified. To devote three college years solely to mathematics, for example, or four years solely to chemistry, even including some physics, implies a degree of specialization suited, in American opinion,

only to graduates. With this view very many Englishmen would themselves heartily agree. Some "schools," to employ the Oxford term, especially scientific honor schools, seem imprisoned within their own traditions and achievement. To broaden them without sacrifice is apparently considered impossible. When these are preceded by scholarship examinations in the same subjects, wherein a youth has anticipated a large part of the first college examination, the results appear deplorably one-sided.

To this objection there are several pertinent replies. Much reliance is placed on a thorough general secondary course such as may rarely or never be assumed in an American high school. After this preparation, it is claimed, certain minds thrive best when furnished with a single main pursuit. That excessive specialization is not inherent in the system is, of course, evident from the curriculum already elaborated above, where the breadth of interest is well-nigh overpowering. Furthermore, changes of recent years have operated to avoid a rigid requirement by enabling the student, at Cambridge, to change his Tripos after completing Part I; at Oxford, to pass to another subject altogether after the preliminary examination. Such combinations have become very frequent and very fruitful. Again a careful study of the syllabuses will usually disclose a largeness of conception even of a single subject that gives the examiner room for extensive demands. Thus in modern foreign languages great weight is laid on the history of the literature and on the social and political history and institutions of the people concerned. On the principle so long followed in classical studies, the purpose is to view with some completeness the whole modern civilization behind the language in question. Such extensions need have no limit.

The chief defense of the present practice in England, however, rests on a condition so familiar there as to be easily forgotten and so elusive that a stranger does not readily perceive it. The nature of the intellectual freedom characteristic of an English university is such that the active student is often, indeed almost inevitably, carried well afield even in his main employment. Quite commonly serious concern with one subject breeds a compensating taste for another possibly very remote. Constant residence with teachers and with other men who are keenly alive intellectually, and the prevailing conviction that a man of but one interest is not quite a man, tend to expand every one's curriculum on a purely voluntary basis. A mathematician unexpectedly discloses an expert knowledge of Norman ballad poetry or a physicist proves also to be an Egyptologist of parts. Art and music thrive lustily on this basis. Such avocations profit alike from the discipline derived from rigorous thinking in one's special field, and from the spontaneity that characterizes an utterly irresponsible pursuit.

It would hardly be fair to judge the typical American reaction in this respect by the alumnus back for his quinquennial, who reminded the professor of literature that the term had closed on his Shakespeare course with *Othello* half finished, and remarked that he had wondered ever since how that story came out. There is a feeling, nevertheless, that any "cultural" subject is safe only when tied up in the catalogue "with credit,"

and that, if so included, it somehow percolates into the *corpus studentium* whether elected or not. Perhaps larger liberty and more faith in a student with mind thoroughly aroused would carry us further than our attempts artificially to balance his ration.

*b. The teacher and the student*

It has already been pointed out, in speaking of France and Germany, that the European teacher, instead of drawing attention to himself with arbitrary personal exactions, stands aside and seeks only to aid the student by shedding light on the ultimate goal he has selected. Accepting this general principle, the older English universities have carried it a step further by introducing an element that is pedagogical in the highest degree. Instead of illuminating the goal only, they turn a powerful light also on the individual student as he makes his way toward it. A friendly critic shows him the path and its obstacles, and insists that instead of isolating and thereby perhaps deluding himself or wasting his time, he work under a wholesome personal scrutiny.

The tutorial system of Oxford and Cambridge is too well known in this country to require minute description. During many years a steady stream of Rhodes scholars has brought back varying but chiefly favorable opinions that have gradually impressed many with the soundness of the principle on which it operates.

Under normal conditions the English tutor is a mature scholar, fully comparable with our better professorial groups. In addition he has skill, experience, and interest in dealing with expanding minds. He often concerns himself brilliantly with research, but thinks of learning primarily in its relation to a young and active inquirer. His function is not that of a formal instructor; at his best he is rather a sort of academic Socrates, the gadfly to sting an untried mind into action for itself, and in the hour or half-hour of regular weekly conference, as well as in innumerable irregular meetings at the fireside, he prods and shocks and illuminates and bewilders until the intellectually shy and self-conscious Anglo-Saxon finds his own feet. The very fact that the student independent of the tutor has before him a distant but clear objective for which he must order and speed his thinking makes it possible for the tutor to deal with him in a manner that is unconventional and dynamic. Talk runs far from the subject in hand in seeking new leverages for breaking up fixed notions. The newly entered scholar, for example, with a carefully documented essay such as he has been used to writing sees it brushed aside: "But where are your views of this matter? Bring me your own ideas on something — anything." Then begins a series of reports and discussions on topics timidly put forward, to be extended and supplemented by the suggestion of books, appropriate lectures, or the work of other students engaged on the same problem. Presently the student gets beyond his habitual depth and is compelled to think for himself.

Informal relations with his tutor soon bring intellectual matters into a young student's daily conversation. He cannot hide himself in a large class; he must express and

defend his views as an individual. In a college of one hundred and fifty men there will be at least a few engaged on the same field, some beginning, some advanced. Into this group the newcomer is gradually drawn. Intellectual interests become familiar. Even though stimulated by a tutor, one's own insights and discoveries demand utterance more vigorously than weightier results gathered for credit at the direction of a class teacher. From this it is but a step to frank exchange with men in other fields; shortly the student finds himself in an intimate forum of fact and opinion. Because the participants do their mental work in the same significant way, problems take on a far-reaching perspective, and the student's real education progresses rapidly in these informal meetings where all dons keep open house and the atmosphere is charged with fresh ideas. Free intercourse of this sort on subjects of study is more profitable than our classroom discussion, narrowed as this is to the subject of the immediate course, and colored by formality and considerations of credit.

The English tutorial work clearly owes its effectiveness to certain indispensable conditions: A thoroughly capable master who can command confidence not only as an accomplished scholar but as an interesting man; close personal contact, either individually or in small groups, with students who cherish a large, plainly defined purpose quite apart from satisfying the tutor; and continuity of these relationships over an extended period on the basis of congenial intellectual comradeship. This last element is affected somewhat by the course a student takes. If working in a single subject he has the same tutor throughout; if in a composite "school" such as that of Philosophy, Politics, and Economics outlined above, he may have two or even three tutors over the two-year period, conferring regularly with each. In case his own college cannot supply the man he needs, he may be assigned elsewhere. In any event one or more competent older men are dealing intimately and progressively with each student's mental life as a separate problem.

Any such scheme of things immediately focuses attention on the able man, while yet giving the weaker student all that he can assimilate. The lower schools send word to their favored colleges that certain exceptional pupils are coming up. The teachers in the schools, after watching and working with these minds as a trainer tends and studies a young horse, are rewarded by their success in the scholarship examinations. Such material is seized upon at once by the college tutors and provided with a congenial spiritual home. They devote themselves unsparingly to the growth and welfare of these boys who, it is hoped, will add lustre to the college name in the final honors lists.

Of course the American university does this likewise. Our schools are scoured for promising candidates, who, when they are safely landed, are turned over to the most remarkable tutorial organization in existence, exemplifying in high degree all the elements enumerated above. Unfortunately, however, this commendable treatment is confined to athletic material. The student of intellectual parts, for whom these same institutions theoretically exist, appears at the gate unsought and unheralded. Neither president, nor dean, nor professor, nor instructor has serious intellectual con-

tact with any one of them individually except in an irregular or accidental way. They wander through their eight semesters undistinguished in the mass, until their names appear in italic letters on the Commencement program as a final tribute from the registrar's comptometer.

Besides tutorial instruction the student at the older English universities has access to an extensive program of university lectures attended by men of all colleges, as well as to the lectures given by the fellows in other colleges. University libraries, laboratories, and museums are at his disposal. Because of the tutorial tradition, the lectures are less systematic and comprehensive than in a German university, for example, and are attended rather for the contact they provide with distinguished scholars than for information. In most subjects instructors are likewise accessible to qualified students recommended by their tutors, in small seminars where the usual procedure is followed. It need scarcely be said that none of these exercises has the slightest weight in credit value; they are pursued wholly on their merits divorced from any concern whatever as to external academic earnings.

A word as to faculty relations under such an examination system as has been described may further clarify the situation. In general the faculties at Oxford are distinguished one from another on the same lines as the examination "schools" — natural science, theology, modern history, and so forth — to one of which the student is committed. Each college will have tutors in as many of these "schools" as its resources permit, and except by special arrangement, their concern will be with students of their subjects resident in that college. In a régime which substitutes a subject or subject-group for free electives, and a final examination for "credits" along the way, all departmental exclusiveness and rivalry disappears. Courses are given that presumably will aid a student in a fixed purpose already chosen, and are not planned to exploit, for the glory of an ambitious teacher or group of teachers, the free elections of a body of wavering youth. There are no contests between departments over what subjects shall be "required," nor curricula that, because of such controversies, come to represent nothing but departmental compromises. A professor has a free field in which to display his merits in the subject in hand, but faculty politics which sacrifice the student are not a temptation.

*c. Variant procedure in the newer English universities*

During the past century, a group of urban universities has sprung up in England under conditions necessarily quite unlike those that determined the original development of Oxford and Cambridge, and more nearly resembling those that produced similar institutions in the United States. Having grown rapidly in size and importance, they now enroll about twice as many students as the older institutions.

At these newer centres a collegiate organization does not exist, there are few residences for students, the tutorial system in its formal aspects is almost unknown, and a class lecture program similar to our own forms the basis of operation. It is of great

interest, therefore, to observe how the educational problem is worked out under these conditions.

Notwithstanding the differences just noted, the procedure at universities like London, Leeds, or Manchester, is essentially the same as at Oxford or Cambridge. It could hardly be otherwise with the example of these ancient and honored institutions continually in view.

Taking the University of London as an example, we find the same required attendance during at least three years with an intermediate and a final examination. With increasing frequency the intermediate examination is replaced by the second school examination, but this substitution of two school years for the first college year does not shorten the college course; three years of advanced study must still be taken for the degree. Those who enter for honors in Arts after the second school examination spend three years in the study of a field such as ancient and medieval history, for example, including a special period or topic within the field, or, in some departments, a subsidiary but related subject. Like the "Schools" at Oxford or the Triposes at Cambridge, a "subject" or "branch" at London University signifies a syllabus for examination in a given field, and the success or failure of the candidate depends primarily upon the outcome in this test; only in doubtful cases is his previous record considered.

Lacking formal tutorial services, the University offers lecture courses dealing with the material of the various examinations in view. These courses must be taken as approved for each student. Attendance is required and sessional examinations covering the lectures are given to determine prizes and class honors, as well as to give evidence of industry. Students are admitted to the final degree examination only after satisfying their instructors as to their attendance and class-work.

The University of London and other institutions of this type have hitherto placed their major emphasis on their lectures and examinations. It is a serious problem to give students, who reside not in colleges but at home or in hired rooms, the benefit of intimate intellectual stimulus comparable to that furnished by the Oxford or Cambridge tutor. The London School of Economics has actually assigned tutors to its first-year students. The University of Manchester has one hostel for men with both resident and visiting tutors. But even without tutors in the technical sense the size of these collegiate units is such as to enable them to approximate the results of a tutorial system. University College, London, the oldest and one of the largest divisions of the University of London, graduated in 1925 eighty-three bachelors in arts and ninety in science. When these are distributed among a dozen subjects in each of two faculties the resulting groups are usually sufficiently small to permit of constant contact between teachers and students in seminars and laboratories. With good instructors such conditions favor a thorough education.

*4. Education by examination*

It is apparently the English view that organized education without some form of final examination is defective. In fact, certain phases of English experience might be cited as indicating a faith in examinations that has operated to the exclusion of other equally essential elements in education. The policy of "payment by results" favored a régime that wrought havoc in English elementary education for a generation, and the external examination tradition of the University of London, although clearly a boon to many worthy students, is believed by some to have hampered the sound development of its teaching colleges.

Excesses in the opposite direction, rarely found in English practice, will readily occur to any one familiar with American education, and go to prove that a reasonable use of examinations is a delicate matter that should rest upon as accurate knowledge as possible of what is actually happening in the mind of the examinee.

*a. Examinations in English schools*

In the practical conduct of English schools of secondary grade an observer is impressed with the enormous importance attached to examinations. They appear to constitute the pivots about which the principal academic operations revolve; they furnish the basis of most of the stimulus and emulation that is generated, and are the most tangible source and measure of the satisfactions of the masters and of the reputation of the school. For a considerable period before examinations are written, many classes devote themselves systematically to dealing with old question papers and to acquiring the examination "technique" to an extent that must detract considerably from the dignity and poise of good instruction based on the merits of subject-matter. The reaction of boys of sixteen in hastily ripping to pieces for examination purposes a group of delicate lyric poems to be sure they have the "points" likely to be called for, is an educational disaster. Indeed, one is often moved to speculate as to what would happen in an English school for youth from twelve to eighteen years of age if all external examinations were abolished and the teachers were obliged to rely wholly on the ordered skill of their own instruction.

The examinations used in England are of the essay type familiar in American colleges and secondary schools. Usually three hours are allowed for a group of disconnected questions, most frequently from five to ten in number and, as with us, designed with the divided purpose of testing a pupil's information and the quality of his thought, and doing neither with complete success. The questions are more difficult and imply a more intensive training than would be assumed at the same age here, but without inspection of the marked papers it would be impossible to say whether they place any greater premium on power to think as opposed to sheer memory than do, for example, the tests of the College Entrance Examination Board. This is probably a widely variable factor since the technique of rating the results of the first and second

school examinations in England seems to be much less carefully safeguarded than in the admirable organization of the American Board.

This apparent undue concern with examinations may proceed from a variety of reasons. The type of examination itself—three hours with, say, two questions per hour—however skilfully put, sets a premium on detailed information covering a wide field that, at least in the case of candidates for scholarships, invites to feverish cramming by the pupils and to subtle and relentless coaching by the masters. Compare this with the single theme, chosen from several, to which the German *Abiturient* devotes four or five hours, and in which, as to both form and substance, he aims to display his insight and constructive powers. Supplemented as this is by an oral test in his favorite subject, it would appear to provide a good student with an emotionally quieter and an intellectually worthier objective throughout the whole period of his preparation. Of course German schools are in a position to do this because the necessary informational requirements are fully cared for by a system of expert instruction which may be relied upon from school to school. This is not the case in England or with us.

Another reason why the examination protrudes lies in a characteristic of the English system of education already alluded to—its emphatic individualism. Mere calendar progress with a group of comrades from grade to grade is discountenanced as unjust to the better minds. But a free field for each student to do his best, for the very reason that it belittles routine classification, necessarily magnifies the examination that fixes the terminus. So likewise a system that permits each school to go its own way in respect to resources, quality of instruction, and general standard of achievement must inevitably attach great importance to the measuring rod by which order is at last introduced into what would otherwise be mere confusion. Good schools with competent teachers find that, although they are sometimes hampered by the narrowness of the examinations, these represent nevertheless a sound educational principle with which they would not dispense; in the poorer schools with inferior instructors the examinations monopolize the horizon. Even in the best of schools the examination, although of little importance as a qualifying test, becomes the field of struggle for many valuable scholarships and other aids. Candidates for these are concerned not with minima but with maxima, and this competition keeps the examination in the full focus of attention.

It is clear that English teachers consider a final general examination as an integral part of their educational system. What in this country is variously regarded, often involuntarily, as a necessary, or an unnecessary, evil, becomes with them the main pillar of the educational process. It is much more than an inducement to hard thinking, important as that is. A clear scholastic goal ahead is believed to encourage as does nothing else, the conviction of responsibility and seriousness of purpose that are indispensable for the moral as well as the mental training of intellectual youth. Term tests and marks are universal there, as here, but there they are used only for estimat-

ing and recording progress and for assigning prizes and class standing. To substitute them on the installment plan for the requirement that a pupil actually set up and grapple with an exacting intellectual task that justifies his claims is like proving fitness to run a two-mile race by running half a mile each year for four years and adding up the results.

*b. Examinations in the university*

Whatever may be the practice in English schools, in the universities the scheme of education by examination finds a consistent and effective demonstration. In the schools a wholly external examination is employed to standardize a system of instruction that is highly variable, a part of which has but recently developed and is rapidly expanding; in the universities, on the contrary, an essentially internal examination is applied to conditions that possess the stability of long, slow growth.

As already pointed out, the examination or "honour school," developed through many decades of trial and experience, determines the direction and scope of a student's effort, while at the same time it allows unusual latitude for the play of varying personal interest and ability; it provides a *terminus ad quem* of great intellectual breadth and dignity, and, by dominating a student's mind over a long period of preparation, compels a concentration and mastery that demand his best powers, however gifted he may be.

A second feature to be noted is the fact that quite irrespective of anything done otherwise or elsewhere it is the examination that determines the nature and extent of the student's academic rewards. With us, at least in the better institutions, admission to college is likely to be the most critical stage in the academic operation. Once admitted, almost every discreet and willing student is or might be borne through automatically; and once through, he enjoys whatever prestige the degree of his particular college may possess. The college itself thinks in terms of a single standard for all, and is duly jealous thereof. Such a standard is conceived to apply to all of its activities as though they were cloth or bricks. The college certifies one-fourth, one-half, or three-fourths of a student's attendance as so much "education" to another institution, where it may be accepted *pro tanto*, if this has the same "standard" or be discounted in case the second college considers itself superior.

The English university approaches the whole matter from a different point of view. Admission is a question of relatively minor importance. Until the current year a student could remain in a Cambridge or Oxford college for a considerable period without having taken any entrance examination whatever. After the subject for his preliminary examination has been determined or his final "honour school" selected, the work done by the student is so completely free and individual that the term "standard" could scarcely be applied. His tutor sees him from time to time, reads or listens to what he writes, and gives him written tests. At Oxford these "collections," as the tests are called, are held often at the beginning of a new term to sum up the reading and

thinking of the preceding "vacation"; Cambridge has more formal examinations in which several colleges coöperate. All of this, however, is very flexible. In a group where he is thoroughly known a loafer is easily discovered, and may be dropped from the college. On the other hand, if merely unconventional or eccentric, a student may browse for months, may even desert his tutor, who is lenient as long as the mind of his charge is apparently at work.

*Pass and honor degrees*

Under such circumstances, the examination necessarily becomes the measure of all things, and in respect of "standards" it performs the function of several grades of American college rolled into one. At the bottom of the scale is a "pass" group reading leisurely or being coached for an examination much simpler than that of the "honour schools." This is the traditional provision for men of wealth or distinguished family with large prospective responsibilities who are not natural students, but whose understanding of the atmosphere and the social ideals of the ancient universities is an important asset for England. They take the "pass" or "ordinary" degree and are known as university men, even though the amount and quality of their work is probably well below the minimum requirement for graduation at a good American college.

The status of the pass degree varies greatly from one university to another. Certain of the modern institutions are proud of their pass curriculum, and rate it as high as third-class honors or higher. Here the pass course covers a group of subjects carried through an elementary stage only, while the honors course requires intensive study of a single field. It is desired by many that honors be offered on the present pass curriculum, which is clearly better suited to some kinds of teaching, for example, than the specialized work for honors. This is now done at London in science.

In general the pass men in English universities have grown relatively fewer of recent years. The pressure of limited resources in dealing with a mounting attendance, the better provision for different types of mind due to the increase in the number of honors options, the rapid development of secondary schools with many scholarship opportunities for gifted students, and the discrimination against pass men in the national salary scales for teachers seem to be the main reasons. Several colleges at Oxford and Cambridge require all their students to read for honors, and in these cases it is hard to say how many third and fourth-class honor men would under former conditions have taken the pass degree. In 1913 half of the Oxford colleges had in no case more than twelve per cent of their students working for a pass degree; at Cambridge the corresponding figure was thirty per cent.[1] In 1926 a careful unofficial estimate placed the proportion of pass men at Cambridge at twenty-two per cent, and at Oxford also there has doubtless been a falling off. Nevertheless, the weight of opinion seems to favor retaining this type of student as a wholesome counterpoise to purely intellectual activity.[2]

[1] *Ibid.*, pp. 184–185 of Appendices. [2] *Ibid.*, p. 42.

Above the pass men the scale of values ranges at Oxford from a fourth to a first-class achievement in an honor "school," i.e., examination. These designations differ considerably from a simple mark of A, B, C, or D that a student might earn in a final test with us. The examinations in a single "school" consist typically in a group of from eight to twelve three-hour papers, as indicated in the syllabus of the School of Philosophy, Politics, and Economics quoted above. The questions are usually numerous, with frequent but not invariable directions as to choice. "Attempt not more than five or less than three," "Attempt at least one question marked with asterisk," "Highest honours may be obtained by answering four questions" (out of ten), "Attempt questions from each part." Directions such as these together with absence of any directions whatever on papers with as many as fifteen difficult questions are sufficient to indicate that it is a qualitative rather than a quantitative result that is sought. Favorable comparison of a paper answering three questions with one answering ten makes this basis clear: it is a test of ability and not of knowledge.[1]

On the result of this entire battery of examinations depends a candidate's "class." Each paper is submitted to a group usually of from three to five examiners, including representatives of other universities, and its value is determined by a majority vote. Although an instinctive distrust of the so-called essay type of examination has prevailed in American institutions for many years, the lack of a trustworthy substitute[2] has prevented its displacement, except here and there where the examination has been abandoned altogether. It is important therefore to discover, if possible, the grounds for the general confidence that the English appear to possess in this feature of their university procedure.

*Reasons for English faith in examinations*

As implied in the foregoing discussion, the final examination is taken seriously as an integral part of the educational process; to omit it would be to cut the nerves of the preparation that has gone before. It is a consummation of achievement envisaged from the beginning, rather than an afterthought important only to fix certain fractions of credit. Instead, therefore, of being belittled as a nuisance, as with us, it commands continuous collaboration of the best minds of the university. A large amount of time is devoted to it and is not thought to be wasted. In America the examination is the private affair of the individual professor; he formulates the questions on the basis of what he himself has taught, and he rates the answers. He is twice subjective: first, in his arbitrary selection of material and its arrangement in his course, and second, in his purely personal estimate of the response of his students to what he thinks he is giving them. As sole judge of the student's version of what he meant to say he is a fairly con-

[1] The late Professor H. Morse Stephens of Cornell and the University of California has related that in his Oxford days he made it a rule never to answer more than one question in each examination, although in that answer he generally answered several others.

[2] The multiple question type of examination is being rapidly refined and has been applied successfully in many types of material to test both extent of information and power of accurate reasoning. Its advocates do not claim, however, that it can as yet be utilized alone as a satisfactory measure of mental initiative, original insight, or constructive power — the traits chiefly aimed at in any useful system of higher intellectual training.

stant factor in deflecting him from the objective truth. With us the most acute problem of a student in examination is not: "What is the most rational answer to this question?" but rather: "What does this particular professor desire me to write?"[1]

In England the field of the examination has occupied the joint thought of many minds over many years, and the questions themselves from year to year are the expression of this thought. It is quite impossible for a professor in a careless moment to set freakish questions only to repent by ignoring the replies. The syllabus, questions, and rated scripts in modern history, for example, constitute in a sense the stable philosophy of education in history not for one individual but for that entire faculty; the conception of the examination is as of something corporative and permanent. Hence also the great amount of attention paid to rating the papers as a task in which several experienced teachers must coöperate. There must be agreement as to what constitutes a reasonable answer to a reasonable question, and the graded traits of ability must commend themselves to joint approval. With such an amount of careful criticism an objective tradition is established which achieves in time among examiners something fairly close to unanimity in distinguishing one grade of ability from another.

A rational tradition of this sort is a great relief to the teacher. What depresses and irritates the American college teacher is not so much the amount of written work to be dealt with as the obligation twice a year or oftener to prepare and submit a mark which shall represent a student's final academic earnings over a given period in a given course. The instructor knows that his real access to that student has been slight, that his own purely personal standards differ widely from those of each of his colleagues, and that his power of appraisal permits at best only an arbitrary verdict. Yet everything the student does must be scrutinized under the tension of this artificial requirement, and to an honest mind it is a hateful task. The English tutor likewise handles a great amount of written work, weekly essays, tests, quarterly or otherwise, sometimes extended papers. Yet his attention is centred wholly on the only legitimate task of any genuine teacher, namely, to facilitate the next step for the mind that desires to take it. The student regards him not as future judge but solely as guide and friend, with the result that sound relations prevail unless, as of course sometimes happens, they are upset for personal reasons.

When the time for judgment comes, however, the Englishman sees to it that it shall be no holiday. He aims to conduct as searching, as exhaustive, as objective, and as judicial a probe as he can devise. It is termed an "external examination," and is so in the sense that it is wholly beyond the control of the instructors of any particular candidate. The examining committee in each subject is drawn from various colleges, and often includes a representative of another university, thus giving the operation the weight and dignity of quasi-universal validity. On the other hand it is essentially an

[1] An interesting illustration of this occurred in an experience of one of the examiners in a college now setting general examinations at the end of its final year. Having made out his question paper, the examiner (newly appointed) showed it to a colleague and was prevailed upon to add a question suggested by the latter. In the examination every student who had taken that professor's course chose that question, and every one answered it in precisely the same way.

"internal" examination in the sense that its scope, spirit, and technique are perfectly understood from college to college and from one university to another. The collegiate fellows and professors of an Oxford faculty have coöperated in this matter so long, both with one another and with Cambridge, London, and Liverpool men, that serious divergence can scarcely arise. With their scheme of group action the risk of injustice to the student is very small.

Another fact is important in this connection. There is little uniformity in the academic preparation of American college professors. A faculty is likely to reflect in its members different sections of the country, diverse combinations and qualities of instruction, and, more fundamentally, the free and individual point of view characteristic of a more or less utilitarian and pioneer society. The judgment of five such critics on a single scholarly production might at first be difficult to harmonize. The English situation is different. The universities of Oxford and Cambridge have for generations fixed the standards of English scholarship. Their teachers continue the tradition that they absorbed as students, and apply the same standards as those by which they rose to their own positions. The intellectual life both there and in other institutions largely modeled upon them is homogeneous and highly schooled in similar conceptions and measures of excellence. Its representatives tend, therefore, to agree in fundamental matters much as they do in their characteristic manner of speech, and a student is ultimately judged not by the individuals with whom he is in actual contact, but by a cloud of witnesses speaking through them.

The results of the examinations vary in different institutions. In the combined "class" lists for 1924 at Oxford, out of a total of 865 successful candidates, 11.6 per cent were assigned to Class I, 42.5 per cent to Class II, 36.2 per cent to Class III, and 9 per cent to Class IV. At Cambridge, where a three-class system prevails, the following proportions appeared in the Tripos examinations for the same year: Class I, 19.8 per cent; Class II, 47 per cent; Class III, 33.2 per cent. Until 1882 in the Classical Tripos and 1908 in the Mathematical Tripos, class lists were arranged in the order of individual merit. At the dates given this plan was abolished because of the excessive competition that tended to discourage an ambitious man from changing his Tripos and thus broadening his course.

Distinctions among ratings disappear almost immediately in American colleges, unless perpetuated in individual cases by class honors, Phi Beta Kappa appointments, or collegiate insignia. In England the distinctions in "class" rating are as permanent and significant as the distinctions that are often drawn between different colleges in America. The mere degree means little in academic circles, but the classes from fourth to a "double first" become the lasting intellectual labels that count powerfully in a man's subsequent career. Academic distinction as a guarantee of success in life has been traditionally discounted in the United States not because of a lack of brilliantly successful men who did well in college, but because in a mechanical system so many who are without genuine intellectual ability are rated as high as the best. The test

of college and the test of life have been incommensurable. In the older English universities, barring rare exceptions, the man who has made his way into the first class is embarrassed by the number of opportunities that are immediately open to him for high preferment. His achievement is almost inevitably a genuine one, and carries with it the confidence of the community.

It is not without interest and significance to us, finally, to observe that it is the reintroduction of the examination for the degree that in England is credited with bringing the ancient universities out of the intellectual stagnation into which they had fallen during the eighteenth century. The Royal Commission, reporting in 1922, places great emphasis on this: "A systematic scheme of University Examinations for a degree" is cited[1] as the "first great triumph" of reform in 1800, and the Oxford Commissioners of 1852 are quoted to the effect that "the Examinations have become the chief instrument not only for testing the proficiency of the Students, but also for stimulating and directing the Studies of the place."

The Commission proceeds: "The zeal and excitement aroused year after year in both Universities over the examinations for degrees, put fresh life into the stagnant waters of Oxford and Cambridge, and gave to the system of competitive examination a prestige in the country at large which led to its adoption, not only as the fashionable panacea in all matters educational, but as the peculiarly British method of selecting Civil Servants."

If such an effect in England is traceable to the simple requirement that the man educated at public expense demonstrate what that process has wrought within him, may it not be that a similar provision among ourselves would restore to effective channels the floods of superficial college activity that a youthful and over-confident people has mistaken for genuine education?

*5. The English attitude toward the teacher*

In France, as has been seen, the ranking teachers for the higher schools are selected in a competition of extreme severity on the result of their intellectual efforts alone, while in Germany a critical judgment is passed also upon technical fitness for teaching. In England, on the contrary, the characteristic individualism of the nation delegates the almost complete responsibility for this important choice to the individual school.

*a. Individualism and the selection of teachers*

The only infringements of this prerogative occur through the action of the Board of Education in approving schools aided by its subsidies; through the regulations of cities fixing standards within their borders; and, indirectly, through the national salary scales for teachers which discriminate against the candidate who has only the "pass" degree. These influences, though of marked benefit to the newer, tax-supported school, leave untouched the great mass of larger endowed institutions that send the majority of pupils to the universities. These so-called "public schools" proceed pre-

[1] *Ibid.*, p. 18.

cisely as do our similar "private" institutions: they secure the type and quality of teacher that at the moment best fits the policy and resources of the particular school. The better schools in England undoubtedly employ excellent scholars, taking wherever possible a combination of a high "class" in examination, and a "blue" indicating distinction in university sport. Where this combination cannot be secured, scholars are supplemented with "blues" who can effectively influence boys in their personal relations both in sport and otherwise.

By and large, the scholarship of English teachers, in spite of their intellectual variability as revealed by their varying university status, certainly tends to be more thorough and significant than that of the incumbents of similar positions with us. Teachers who have a first or second "class" from an English university proceed to teach with both knowledge and conviction in their respective fields — a natural outcome of a form of training that demands prolonged and vigorous intellectual coördination as a condition of success in a final test of ability. They lack the versatility of those American teachers with scattered preparation who are willing to teach almost anything on short notice, whether they have studied it or not, and who occasionally do so surprisingly well. Convinced by their own experience that hard and unremitting application in certain subjects is highly productive, English teachers, much as they value the effect of sports on character, are not tempted to acquiesce in a theory that extra-curricular activities are a suitable basis for education.

*b. Capacity to teach*

Criticism of instruction and the practice of rationalizing class procedure in order to enable a teacher to appreciate and habitually to select the most successful way of handling a given problem, are almost as rare in the preparation of English secondary masters as they are in France. Training colleges and departments of education in universities, though numerous,[1] have placed their graduates chiefly in schools under the supervision of the Board of Education and in girls' schools of all types.[2] Even the Board's inspectors themselves are far from being unanimous and convinced supporters of such training, as now given, and the great majority of headmasters in whatever type of school are said to be quite indifferent to it.

Under such circumstances the appointment of a secondary master in England hinges, first, upon his standing in the university, and, second, on his personal qualities. The question whether or not he can teach seems to be a matter of minor consideration. Indeed, even among the grant-earning schools the opinion of the inspectors who presumably know most about the teaching ability of candidates is rarely or never asked. On the whole one has the feeling that the relations between the teacher

[1] Twenty-five in 1924, providing courses of training for secondary schools.

[2] Mr. Lance Jones's interesting study of "The Training of Teachers in England and Wales," published in 1923, assembles (page 121) the figures of the Board of Education from 1909–10 to 1921–22, showing that in the thirteen years 582 men and 2179 women had received professional training for secondary teaching. "In 1913 only 180 out of 5246 men teachers in the 1010 Secondary Schools to which the figures apply had followed a course of professional training specifically for Secondary Teaching. . . . Were figures available for other than grant-earning Secondary Schools there is little doubt that in the boys' schools the number of trained teachers would be negligible."

and his class, as a group, count for considerably less in England than in Germany or with us; that such relations are less carefully scrutinized, and are not brought into the open except where it is unavoidable. As in many American private schools, a master appears to be judged not so much on his skill in class instruction as on the sum total of his success in contact with pupils.[1]

This difference in emphasis should be borne in mind in judging the quality of English instruction. The work of each teacher will be found to be a unique phenomenon instead of an individual variation of well-tested principles. The visitor, and of course the pupil, must re-orient himself completely in each successive classroom. There is missing even the common training of the French teacher who is also highly variable in his adjustment to his class, but who, when his educational insight fails him, falls back on the one resource in which he has been thoroughly schooled, namely, a power of lucid and authoritative exposition that is of value at least to the better minds before him. English teachers possess no such common denominator. Their intellectual equipment is necessarily almost as unpredictable as their teaching skill. Some of them, brilliant scholars and acute self-critics, are as accomplished class teachers as any on the Continent. Others appear to make heavy weather: confused under observation, planless or bizarre in procedure, medieval in conception of rewards and penalties, and inexcusably wasteful of the pupil's time and energy — all faults that could be largely remedied by a frank and open policy of competent criticism.

The more one sees of English teachers, the more one is inclined to believe that the tutorial system of Oxford and Cambridge consciously or unconsciously forms the basis of their conception of secondary instruction: they are concerned with touching up the individual pupil, with bringing along the bright boy, and not with welding a class-group into a sort of orchestra where each plays his part to the best of his ability and is inspired by the sense of contributing to a joint achievement. The former plan is effective where small divisions and selected pupils are involved, as is the case in most of the advanced courses in English schools. The latter has been the ideal in American schools where classes are large and it is desired to ensure participation for the weaker pupil.

Certainly for us the skilful classroom performance is the better objective, including, as it does, the advantages of both. We have already been more largely influenced by Germany than by England at this point and should confirm that preference. The

[1] In a school that was repeatedly ranked among the first ten or twelve of the larger Public Schools in the country the following plea was presented as excusing the masters from opening their classes even to a properly vouched-for observer. "You see, the masters in English schools are usually drawn directly from the university, frequently from among men who have previously attended a Public School, even if not the one where they are asked to teach. They receive no training in instruction and are therefore obliged to develop their own methods as best they can. These methods are necessarily extremely varied and often uncertainly followed. The men are not usually visited by older teachers or even by the headmaster. In this school such a visit would be considered bad form. The only indications as to a master's success or failure, therefore, are those gradually gathered from the boys themselves. Visitors make our masters very nervous; a recent inspection, our first, by the Board of Education nearly upset us."

At another school — one of the leading schools in England — a similar excuse was offered on the ground that the teachers had recently had visitors from the Board of Education, and that another would prove too much for them. Fortunately, several headmasters were found who opened their doors without hesitation, and made possible a fairly representative study of instruction, but the delicacy of the proposal was everywhere admitted.

curious habit that in defiance of experience in all other fields allows practitioners to blunder along with devastating effects in the most subtle and complicated task that exists, merely to avoid the imputation of the taint of "pedagogy," is too costly a policy to imitate. We have enough of it among ourselves.

## III. COMPARATIVE SUMMARY OF EUROPEAN AND AMERICAN EDUCATION FOR INTELLECTUAL WORKERS

For a graphic comparison of certain elements in American and European education the reader is referred to the chart at the end of the book.

The vertical age lines running through the chart are identified at the top and reveal the approximate ages of the student in each country. The numbers between enumerate the years from the beginning of each curriculum. The width of the horizontal strips on the secondary side throughout, and in the American college curriculum (except for the master's and doctor's degrees) shows the number of weekly periods (hours in France) of class-work in a given subject. The narrowest strip is one period. For the foreign universities and for advanced degrees in the United States, the width of strip denotes merely major or minor subject. The white crosses represent general examinations covering an extended period of work. The dark crosses in the American section stand for semester examinations. These tests, usually written, cover only the work of the foregoing semester, and should not be confused with general examinations on subjects, as such.

The secondary curriculum given for Germany is that of a Prussian *Realgymnasium.* All subjects must be prepared for final examination although it is usually omitted in certain branches in each case. The university work is that of a student who proposes to teach in the higher schools, and has selected German and English as his majors and history as his minor—a frequent combination. The other subjects are involved with these (see page 65). The candidate may, and often does, take his doctorate in one of the same subjects before coming up for the state examination. The doctor's examination is indicated here as being taken in the fifth year in English.

The secondary curriculum given for France is the present classical course of the *lycée*, omitting Greek. The alternative is the scientific curriculum with modern languages. The university work is that of a prospective teacher of English in a *lycée.* It either leads through two or three advanced years in a *lycée* to three or four final years at the *École Normale Supérieure* at Paris, or may be spent entirely in a university. Although the examinations for the *licence* may be taken at different times, they are placed together for convenience, followed by the *diplôme* and *agrégation* as indicated on page 58.

The English secondary curriculum, taken from a grant-earning London secondary school of high standing, indicates for the two advanced years only the option which includes economics. The first five years are fairly typical of all English secondary schools in their courses for the better pupils. There follow three years at Oxford University, terminating with the B.A. degree. The doctorate added in the chart is unusual in England, and would require perhaps two years longer. The first university examination indicated is the "Preliminary Examination in Modern History" with its attendant requirements in other subjects; the

second is that of the "Honour School of Philosophy, Politics, and Economics," with associated subjects (see pages 79, 80).

The American curriculum, both secondary and higher (first four years) is the actual record of a graduate (1926) of a large university on the Atlantic coast. Years for the master's and doctor's degrees have been added to make the display representative. The secondary work was done in a typical American high school, and both secondary and collegiate work are rather more coherent than most of the samples examined.

The final two years of the elementary school have been prefixed in outline to show the effect of the extension contemplated by the junior high school organization, and a brace has been introduced below to indicate the approximate spread of activity that is essentially secondary in its nature, and in Europe is organized into one institution.

An attentive reading of the chart discloses three important differences between the American and European systems of education for intellectual activities:

1. It is evident that in Europe the general foundation of an intellectual education is laid compactly in a single sequence including nearly the entire adolescent period. Having finished this period, a student turns to a wholly different type of institution where he undertakes a more independent and concentrated task, out of which sooner or later will grow the chief activities of his life. Meanwhile, his general education continues inevitably as a natural result of his thorough preparation.

The American spreads his fundamental preparation for intellectual pursuits over three almost unrelated institutions — elementary school, high school, and college; and he does this so loosely that the student's college period presents a long-drawn-out struggle between his efforts to begin a special education that he needs and to terminate the formal general education that he has not yet been trained to manage for himself. The defects of a badly-knit secondary period result in giving the American student a serious handicap in comparison with the European. This is variously estimated as from one to three years in time, but the difference in quality is one that the average American student probably never recovers.

2. It is obvious from the diagram that each European country here represented avails itself to the utmost of the principle of continuity in the main threads of its educational material. With a well-chosen teacher to supply variety, every subject that is begun continues (with rare exceptions) to grow and deepen, enriched from point to point with a parallel development in other subjects, until the pupil is provided with a mental equipment on which he may rely and which will harmonize with subsequent acquisitions at the university. In both school and university this result is attained by adjusting long periods of work to clearly defined aims, by perfecting the habit of constant revision and reworking of material from fresh angles and advancing points of view, and by keeping the student's attention fixed upon the quality of his thinking instead of diverting it to the amassing of credits.

In the American diagram it is plain that the student's program is completely dis-

rupted. An elective theory coupled with a mechanical scheme of course-credits has with curious consistency destroyed wherever possible that element of continuity which makes the European system so fruitful. Because of inherent characteristics, languages have somewhat escaped, though the two years of secondary French, left in mid-air, show what may happen to any language unit except English. Mathematics, treated everywhere abroad as a single unitary subject, is here split into mutually exclusive fragments. In spite of an apparent concentration in English, the college curriculum is a haphazard collection of morsels, and nowhere more so than in English.

3. The electric impulse that invigorates the process of European education from beginning to end flows from the final, usually external and comprehensive, examination at the end of each considerable stretch of work. It is represented here by the white crosses. In the case of the weaker mind, or in fact of any mind that is poorly or hastily cultivated, the general examination may lead to apprehensive cramming, with effects upon the student perhaps not worse than those produced by a deficient sense of obligation. For the good mind, supported by deliberate study and good instruction, the European finds the broad examination not merely a satisfactory test of intellectual power but an indispensable instrument wherewith to develop it. He considers it as necessary to the student as is a target to the marksman. Since it is a guarantee of ability, he aims so to conduct it that only a mind of appreciable power can succeed.

Lacking the cohesion that results from well-directed thinking, the American curriculum flies to pieces. Aims are shortened and multiplied into a number of comparatively trivial, discontinuous, and undeveloped items. Though the student is apparently busier, the intellectual pace is greatly relaxed owing to the lack of steady converging effort and the intrusion of much administrative detail. A large portion of the student's potential energy is sacrificed by terminating his obligations at the end of each semester with his class-work. Crosses on the American diagram indicate examinations on the work of the term or half-year immediately preceding. For institutions operating on the quarter system, they should appear three or four times a year instead of twice. Used as at present to relieve the student of further responsibility instead of to test his progress, these exercises embody the antithesis of liberal, disciplined thinking. The European would consider them an unmitigated evil.

## IV. AMERICA'S CONCERN WITH EUROPEAN EXPERIENCE

Before considering in detail how European example might profit the future adjustment of American education, it will be instructive to glance briefly over our recent history, in so far as it concerns those aspects of education with which we have been dealing.

### A. A Century of American Higher Education

In some of our foremost American colleges great changes have come about during the past one hundred years.

1. *The early status of the college*

The situation at Yale in the first quarter of the nineteenth century was probably typical of a number of other institutions, if not in details, at least in certain fundamental principles. The following extracts from an official memorandum date from 1828:

> "If three years immediately preceding the age of twenty-one be allowed for the study of a profession, there is abundant time previous to this for the attainment of all which is now required for admission into the college, in addition to the course prescribed for the undergraduates. Though the limit of age for admission is fixed by our laws at fourteen, yet how often have we been pressed to dispense with the rule, in behalf of some youth who has completed his preparation at an earlier period. . . . May we not expect, that this plea will be urged with still greater earnestness, when the present improved methods of instruction in the elementary and preparatory schools are more and more accelerating the early progress of the pupil? [Page 23.]
>
> "Each of our classes is examined twice a year. At the close of the year, the three lower classes are examined in the studies of the year, each of them in two divisions. Somewhat more than a day is assigned to each class; and as each class is examined in two divisions, the time is the same as if each class was examined in a body about two days and a half. [Page 40.] A committee is present on the occasion, consisting of gentlemen of education and distinction from different parts of the state. The degree of correctness with which each student answers the questions put to him in the several branches, is noted on the spot, and entered in a record, permanently kept by the Faculty. [Page 11.] . . . At the close of the month of April of each year, the three lower classes are examined in all their studies from the time of their admission to college. The time is extended; in other respects, the examinations are the same as before. In April, the senior class is examined in the studies of the senior year to that time; and the mode of the examination is the same as of the other classes. In July, the Seniors are examined for their degrees. They are examined in two divisions, and on the whole college course. For a number of years past, this examination has extended through not less than three days, and sometimes three days and a half, at the rate generally of eight hours a day. As the class is in two divisions, this is the same as an examination of six or seven days for the whole class together. . . . In the opinion of the faculty, the examinations of the classes, as now conducted, are a powerful incentive to study, and afford the means, especially in connection with other opportunities, of forming a satisfactory opinion of the attainments of each individual student." [Page 46.]
>
> Extracts from *Reports on the Course of Instruction in Yale College by a Committee of the Corporation, and the Academical Faculty*, New Haven, 1828.

A century ago Yale College, teaching pupils of an age suited to a modern high school,[1] gives the impression of administering its modest, definitely fixed curriculum with much thoroughness of intellectual inspection.

[1] The age distribution of entering freshmen at Harvard College is available for 19 classes between 1814 and 1842. Of all students admitted, over 40 per cent were fifteen years of age or less, 13 per cent were fourteen or less, 28 individuals entered at thirteen, and 4 at twelve.

*2. The modern high school replaces the college*

Instead of falling, as was anticipated, the age of college students steadily rose, and little by little, the new four-year academy, or high school, and the college, after some disputing of the field, arranged themselves as they stand to-day. In spite of important differences between these institutions due to the varying ages of their pupils, they display a striking resemblance. Having developed out of one and the same social tradition, they have cherished much the same ideals and have retained almost exactly the same procedure and technique. The high school assimilates fraternities and an elective system from the college, and the college takes over an elementary curriculum from the high school. By a sort of inevitable osmosis the spirit and method of one become those of the other. Whereas the European derives his secondary school by adjusting the ideals and technique of the university to competent young minds, the American derives his college by stretching his popular high school to an adult size. As will be pointed out hereafter, it is in part the maladjustment of these two rather sprawling institutions that is responsible for the existing deficiencies of American education.

*3. Peculiarities in the evolution of the college*

This question of school *versus* college might not have arisen had the American college of a century ago retained, as did the European university, its early principle of a discriminating selection for graduation. Whether because of the ancient example of the medieval university and of the "disputation" whereby a student became a "master," or because of responsibility to the state in delivering men fitted for its service, or because of practical convenience in uniting the educational efforts of a group of component colleges, the fact remains that the European university has retained and strengthened its requirement that candidates for degrees prove their mettle, and has not been deterred by the enormous expansion in teachable knowledge during the past seventy-five years.

In America the development has been otherwise. The freedom of a new country rejoicing in both its physical and its spiritual distance from Europe, the absence of a sponsoring state, and the practical aspect from which every social institution was regarded, favored a unique policy. At Yale the examination covering the entire curriculum for the degree gave place in 1850 to "biennials," discontinued in 1867 in favor of annual examinations. At Harvard, although the Statutes and Laws of 1845 prescribe a public oral examination by a committee, this had disappeared by 1870 in favor of the familiar written "mid-years" and "finals" conducted, as they are to-day, by the instructor.

The gradual introduction of optional subjects or equivalent courses, chiefly as a result of German influence, shattered the fixed curriculum of a century ago. In the absence of forces that might have kept these new branches organized in large groups or curricula making broad intellectual demands, the individual professor became responsible for examining and giving credit in the matter of his new offerings when and as he thought fit. Thereby he won a *Lehrfreiheit* that involved the student in

a manner characteristic of no European system. In Europe a student with a definite aim chose freely from freely given courses those that he needed; with us the separate "departments" among which the curriculum was parceled out embarked upon a competitive campaign to capture students who had no aim. Some quantitative measure seemed the most obvious device by which to administer the new procedure, and consequently the "subject" was replaced by the "semester hour" or "point" and the public examination by "satisfying the professor" term by term.

4. *The credit savings account*

These tendencies reached their logical development during the final decade of the last century on the inauguration of the "quarter system." With daring optimism and an uncanny instinct for a type of organization to which an ambitious but practical folk would respond, an administrative genius adapted to education the principles of mass production by which two decades later a skilful engineering innovator revolutionized the automobile industry. By dividing the year into four quarters, by dividing all knowledge into convenient quarterly bits, and by rounding off and sealing for preservation each bit with a test and a credit, a system was devised whereby, for any one who had come up through the schools, an education, or at least a degree, became available in the form of interchangeable credit units taken in a very liberal order, at any time, for any purpose—the "universal" college course.

Although the quarter system has enjoyed limited popularity, the underlying idea, of which it was the culmination, spread to all types of academic organization, wherever the elective program of studies on a course-credit basis came into vogue. The conception was extended at once into the secondary school, which in general has followed the college like a shadow; indeed, if the college to-day deprecates irrational procedure in the high school, it should search its own heart. Under the doctrine set forth by the best leaders of the period, the student could and would, if given the opportunity, choose for his study from point to point the most profitable subjects. Both school and college, therefore, proceeded enormously to enrich their offerings, only presently to discover an alarming aimlessness or perverseness among their students in selecting what they would take. Intellectual values became blurred and sank in student esteem, while credit values rose apace.

This aspect of the matter necessarily demanded immediate attention. In a summary of the principles of mass production Mr. Henry Ford indicates its fundamental characteristic: "The physical load is lifted off men and placed on machines. The recurrent mental load is shifted from men in production to men in designing."[1] Similarly in the new educational system the mental burden need no longer be borne by the student; his only indispensable concern is to earn quarterly credits. The "designer," however, assumes a difficult obligation, and the last thirty years of American college administration has witnessed a desperate and fruitless effort to discharge it.

[1] *Encyclopædia Britannica*, 13th ed., Art. "Mass Production," p. 823.

*5. Ineffectual efforts toward reform*

Believing that, consistently with the theory, not even a choice of definite ends could be prescribed, yet realizing the predicament of the inexperienced student, each college authority has undertaken to relieve him by pointing out how, in the abstract, the thing should be done. An elaborate accumulation of devices such as majors, minors, sequences, related fields, required subjects, free electives, limited electives, alternative electives, and so on, all testify to the "designer's" solicitude, by a hedge of regulations, to guide an unseeing student through various mental exercises that the experienced master considers desirable. It seems not to have occurred to him to give the student some clear conception of what he might hope ultimately to create, so that he could intelligently do the designing himself.

Our whole policy in this respect is rapidly proving itself a complicated failure; it produces graduates by the thousand, but not self-educated men and women. The principles of mass production are not applicable to human education of the highest type; the mental load, the ultimate design, must remain with the workman; only in so far as it does so can the process be successful.

So completely had the credit system gripped American institutions that it seemed not long ago as though a profound upheaval would be required to break its hold. Yet to-day several indications point to a different order. Foremost, perhaps, is the revival in 1913 in Harvard College of the old examination for the degree. This is likely to prove one of the great landmarks in American educational history, restoring as it does to the student a dignified intellectual task in the performance of which he may become an educated man.

*6. A cycle of educational experience*

A remarkable cycle of our educational history bound up with a great period of national expansion is thus apparently moving toward its close. The old system has served a purpose. Without its loose conceptions of intellectual worth and its semi-commercial attitude toward intellectual gains, we might never have achieved the vague but essentially wholesome educational faith that is now definitely felt in every part of the country. But "loose" the old procedure certainly was and is, when viewed as education. It has been the line of least resistance, the easiest avenue to institutional aggrandizement — always an acute instinct in a rapidly growing country. According to our unexpressed philosophy: "Students are necessary to make a university. But students traditionally hate searching examinations. Therefore, dispense with searching examinations and preserve appearances by some that are not troublesome." The wish to make education and its agents popular with legislators and disbursing officers gave our "soft pedagogy" a powerful leverage, and in some places has withered both school and college to impotence. For the boy who "worked his way" to a diploma, the credit game was wonderful. A degree and $1000 in the bank on Commencement Day were by no means unheard of, and were praised as a tribute to the American college idea,

whereas an honest examination would certainly have cost the $1000 and probably the degree as well. In both the secondary and the collegiate fields the system is such as to lend itself automatically to manipulation with a view to "alibis" for non-performance at every turn. For convenient administration, for easy transfer from college to college, for teachers painfully earning a degree at the rate of a few credits a year, for acquisition of social prestige, for boosts up the commercial ladder, indeed for everything except a thorough intellectual education the plan is admirable.

A change is inevitable. As we see more clearly the need for national consolidation and for a definition of intellectual values with which we are willing to stand before the world, we must create conditions that will favor a new type of education. This is not to charge our past with failure any more than to urge upon a grown youth the judgments of maturity is to disparage his earlier conduct. Our opportunity as a nation is without precedent. We are called upon to produce on a clean soil an education that is sincere and sound, that values each differing mind, and with every honest encouragement, offers it advancement to the limit of its capacity, protecting it at the same time from illusion as to the true nature of its attainment and of what lies beyond. Upon such a foundation we may experiment indefinitely with democracy and be confident of the outcome.[1]

## B. Certain Aspects of American Education in the Light of Foreign Experience

When summarized in lowest terms the chief principles without which European education would not be itself are these:

*A.* As concerns the student

Intellectual responsibility and obligation that may not be evaded.

*B.* As concerns the educational authority

1. Precise statement of aims — that is, sharp definition of intellectual objectives to be held by the *student* rather than the teacher.
2. Differentiation according to aims and mental aptitudes of students.
3. Inherent relatedness and continuity of content.
4. Close personal contact with competent teachers.
5. Satisfaction of the initial aim in a final comprehensive demonstration of attainment.

An attempt has been made in the foregoing pages to show that so far from being peculiar to a particular country or region, these principles are implicit in the successful promotion of what we term education in its organized form anywhere. To

[1] A widely experienced English critic of America states in a letter his faith in her as follows: "Now, what interests me in American education is that with all its faults it is alive. I am certain that you will evolve a new type of school and a new type of education when once you have really got down to the job. You are experimenting; you have enormously difficult problems to face — the foreign and the negro element, for instance — and you are creating a new public attitude towards the school. Your tremendous prosperity is probably a hindrance in many ways, but in the end it will give you the economic means and the leisure to tackle your problems on a gigantic scale. You see that, in spite of the European sneer, I am a firm believer in the innate idealism of the American nation. Perhaps one reason for this faith of mine is the fact that, when your troops came over to France, I helped to censor their letters and thus obtained proof that, whatever may have been the attitude of the diplomats, the American nation entered the war for a high ideal."

transplant a nation's social institutions is naturally impossible. It is the availability of the useful underlying idea that makes international observation and intercourse worth while. We propose, therefore, to indicate how some of these principles might be helpfully applied to our own educational agencies.

1. *Considerations jointly affecting the school and the college*

*a.* The chief problem of joint concern to school and college in America to-day is one of definition. It is clear to no one what is school and what is college. A school-minded individual may pass clean through college and graduate, while a college-minded student may reveal himself early in his school career and yet find little to suit his needs. During most of the college course the two types are indistinguishable because of the similarity of the processes. Of this confusion the whole tangled story of the making and unmaking of "entrance requirements" is sufficient proof. It has gone laboriously forward for many years, and is as far as ever from an adjustment that implies a precise and defensible distinction between the two institutions.

The only satisfactory way out of this irrational situation is through a clean-cut differentiation of aim and practice. In so far as it deals with youth who are going to college, the school owes a duty to the student to ascertain what is involved, and to fix, not its aims but *his* aims accordingly; then it should undertake to help him do a job that will not later have to be patched up or done over. It may have to take such minds by themselves, it may have to lengthen its course, but when the school has done, it should be able to point to a definite group of worthy aims responsibly held and honestly and demonstrably realized. The result, epochal in the student's career, should make possible thereafter a totally different sort of treatment.

The college in turn will have to forget its ancestral dealings with children, if it is to fit into a rational sequence. There should be more than a freshman cap or a fraternity pin to mark the new intellectual level. If the college is to be something other than a socializing vehicle for the whole population, it will have to formulate and provide its students with clear *intellectual* aims and then adopt a procedure that befits them—a procedure that will completely differentiate it from the institution that goes before. Instead of spending its early years in querulously doing over or supplementing what is undeniably a part of secondary training, and its concluding terms in a vague conflict of purposes at best only half comprehended by the student, it should recast and unify its entire process. It should define and emphasize at the outset, as contrasted with the school, the different thing for which it would stand, and proceed in the expectation of eventually pointing to a result that is defensible as a definite and, again, a demonstrable intellectual advance.

*b.* A group of important considerations grow out of an attempt to differentiate school and college as above suggested.

(1) The only apparently valid reason why a college should limit its attendance or possess distinctive aims is that it may attract and nourish such minds as are capable

of serving their day and generation in pursuits that, in spite of the danger of misapprehension, may only be termed intellectual. This capacity should, of course, be attended by moral and personal characteristics that make such behavior profitable. The present order has minimized intellectual training and, still worse, has identified it with the processes of the bookworm. Merely to command the highest "marks" is a power often rightly despised, and it is an egregious mistake to term its possessor intellectual without further evidence. Because there has been so little in the college's intellectual program to challenge first-rate ability, we have attempted to justify a college career with the slogans of "character" or "leadership" or "good citizenship," as though these could be produced in an intellectual vacuum. Such qualities are as imitative and weak as are all other blind virtues except they be founded on intelligence. The real problem is to breed those attitudes in association with as highly developed minds as we can get, to mark the stupid drudge on the one side and the philistine on the other, and to place at the service of the community the supreme qualities of human life in the finest possible combination. It is in this way that Europe has worked out her intellectual salvation, and sooner or later we shall realize the same ideal. On this fundamental premise, therefore, any college should base its activities.

(2) With this *sine qua non* of the college the school will have to agree unconditionally if we are to make an intelligible whole of the process to which we submit our students. The recognition and development of capacity for independent intellectual work are far from being the only aims of the school, but they are among the most important, and pupils who display such powers should be handled primarily in the perspective of their future careers. Furthermore, the very uncertainty as to future careers together with the obligation to give each mind its largest chance would suggest the policy of ensuring to every highly capable and willing boy or girl the basic intellectual training and habit that conditions success in various profitable directions.

Emphatically such is not the case to-day. Most students are at present well on in their course before the best colleges — the institutions that select good minds and possess the best teachers — can induce them habitually to formulate independent judgments or to use books — the two chief tools of all subsequent education. Many college students never display these abilities. To ensure some dexterity with these tools is the primary duty of the secondary school, and it cannot be performed in the moulds of indiscriminate mass education that our present organization supplies. It must nevertheless be done and be done in the public schools, if a democratic system is to justify its principles. But this is a school problem and as such it will come up later.

(3) In order to break out a clean and direct path for those who may be fitted to spend their lives mainly as thinkers, the intimate coöperation of school and college is of first concern. Yet no American can consider it the only concern even of the college. Even were it possible at once to turn all American colleges into purely intellectual institutions, this would be extremely undesirable. There is a second class, perhaps several classes, of individuals, well within the legitimate definition of intelligence,

that will never make intellectual interests their chief business, yet will profit largely by close association with them. This shading off is naturally a matter of experiment, but it is a necessity wherewith American education will always be obliged to cope.

The foremost lesson that we in this country have to learn in this connection is where to place the emphasis. In this, as in many other vital distinctions, it is the emphasis that determines the result. A college with the bulk of its membership keenly alive to its intellectual function may well provide for a fringe of workers having less obvious or different mental capacities but fitted to profit by a simpler curriculum. Certainly a city school system can be better trusted to serve honestly the "average pupil" or those in need of special help, if it proves its sense for the true values of education by serving its best pupils in a fully adequate manner. But the college or school that dully or carelessly strikes a mediocre average, and invites all grades of ability to accept its mechanical imprint as though it were the mark of supreme excellence, is scarcely satisfactory. The child has as much right to be impressed with the true nature of its intellectual coinage as the parent to be assured of the true quality of the monetary values on which his adult operations rest.

*2. Considerations affecting chiefly the school*

Secondary education in the United States has grown into an undertaking far different from that which will be found in Europe for some years to come. We have the resources and the will to take large groups of adolescents out of material production in the hope of developing their minds and forming their characters. Our acceptance of this commission has anticipated our knowledge of how to discharge it, but certain aspects of the problem are clearer than they were.

Whatever may be done with children up to eleven or twelve years of age, it is reasonably certain that they cannot thereafter be educated alike without gross injustice. The most difficult problem that the secondary school has to face is how to construct and select that type of education which is appropriate for each individual mind. On this hinges the simpler but equally important need of making it possible for each to follow the course that clearly suits him. These inherent questions must be solved, and no one who deals with any form of education can be relieved of responsibility for promoting a solution at this point that befits the intelligence and democratic spirit of our people.

We are concerned here with that type of secondary education that must later unite, whether well or ill, with some form of training intended to develop existing aptitudes for intellectual work. This is but one aspect of the secondary problem; numerically it concerns a limited proportion of the population; yet, as has already been suggested, the whole range of service in a school system is tuned, like a musical instrument, to the pitch that is fixed at this critical point. Here Europe has much to teach us.

*a. Secondary education an indivisible unit*

An integrated whole, completely distinct from college or university work, is the universal European reply to the question of secondary school organization. The wisdom of this policy is only too clear from the chart already discussed, and need scarcely be reiterated. In America, we begin the process of adolescent education in the elementary school, or more often ignore altogether the important early years; we demand sixteen sacrosanct "units" of credit during four years of high school attendance; then we let the college, impatient to be doing something else, bring the task to a completion which it never defines. The result is a figure with knees on the earth, head in the clouds, and a torso blindly groping between.

Fortunately the end of this anomaly is fairly in sight. The junior high school program adds two years at the bottom while the junior college movement affixes two years at the top of our familiar four-year institution, and we are sufficiently pledged to both innovations to give us a secure basis for thorough experiment. The marks of transition are still painfully evident in this new eight-year aggregation. There is some tendency to separate the junior high school into a distinct organization, thus giving us, instead of a close union with the upper school, an element of disintegration and friction possibly more active than before. For the pupils with whom we are dealing this would be deplorable. The junior college, on the other hand, is asked to maintain some newly discovered "college" character. Considering the frequent practice of entrusting college freshmen to instructors of unripe scholarship and meagre experience, this stipulation may not altogether deserve the emphasis it receives. The substantive scholarship in teachers for such institutions should doubtless be advanced over the usual high school requirements, but the standards of first-class secondary teaching have fully as much to contribute.

In this new alignment the chief desideratum is that the counting of credits should be forgot and that these eight years should fuse into a continuous effort to render a well-defined service and to do it thoroughly. For pupils of marked scholastic aptitude this service is, first, to open wide the main channels of a general education, and, second, to deepen for each pupil those in which his ideas flow best, until he displays a confident independent command of his intellectual resources. Let us put our minds on the nature and scope of this task; then let us dispense with "credits" and talk in terms of education instead of a jargon of the market which makes us forget what we set out to do and for which we must continually apologize.

*b. Segregation of pupils according to aptitude*

The service that has been proposed seems impossible of performance unless there are brought together for the purpose those pupils whose natural abilities would make them good comrades in such an undertaking. This principle applies equally of course to groups other than those for whom advanced training is intended. Under American conditions of well-nigh universal secondary education such separation becomes our

only security that each pupil, whatever his ability, will enjoy an appropriate treatment. Adolescents are more conspicuously differentiated than young children. When considering the weakest type we feel at once the injustice of herding them all, weak and strong, together; yet any substantial distinction in mental engagements requires similar segregation as one mounts the scale.

Many high schools through the country have attempted to section their classes in some or all of their subjects according to the pupil's ability, and sometimes with good effect. It is usually found, however, that the plan breaks down with dwindling attendance after the first year, because of administrative difficulties in making wise provision for a pupil on various levels of merit and in a wide series of electives. Even at best the plan sacrifices the morale of a fixed group for which a suitable, interrelated curriculum and consecutive treatment may be provided.

Two schools may be cited as typical of a different and more promising solution of the problem.

The Walnut Hills High School in Cincinnati, formerly a local high school, was operated for several years as a college preparatory institution for local candidates and for selected pupils throughout the city. For the last two years, however, it has been open only to pupils who display exceptional mental powers. The selection is based upon intelligence tests combined with a careful study of the school record and the verdict of earlier teachers. Nine-tenths of the pupils enter after the sixth grade, although some are drawn also from the seventh and eighth. Here, then, is a group of eight or nine hundred pupils of good ability taking a selected course of study with the express intention of entering college, as the great majority finally do.

The impulse that originally created this school was a democratic idea. It proceeded from the fact that Cincinnati pupils who expected to enter the leading colleges were obliged to secure their preparation in private schools either at home or abroad; the public school was not equal to the task. This is no longer true. Pupils from this city school in increasing numbers take the examinations of the College Entrance Examination Board, stand high in its lists, and are proceeding to colleges all over the country.

The second school, the James Madison High School of Brooklyn, New York, revised its plan of operations in September, 1926, as follows: Arranging their six thousand pupils as nearly as possible in the order of merit as disclosed by tests of intelligence and previous records, the school authorities have organized approximately the upper twenty per cent into a separate school under a different name, with the purpose of giving them a separate curriculum and of keeping them distinct from the other groups throughout their course. Although the pace of this group is not quickened, its work is much enriched and materials are considerably modified to suit the keener minds. Similar treatment has been accorded the next sixty-eight per cent who take the customary high school program, and the lowest twelve per cent whose work is greatly simplified. These limits vary, of course, as reclassification is effected from term to term; every facility is provided for passing them in either direction. Each teacher has his

work distributed so far as possible over all groups. The first six months of this experiment are promising, and have been characterized by a sharp rise in scholarship throughout the school, but it is too early to define the permanent results.

Instead of merely sectioning subjects, both of these schools have taken the significant step of placing the whole pupil in a separate group where common interests may develop and the latent values of such treatment be secured. If options were reduced to a few nearly fixed curricula, this would be feasible even in a relatively small school, for school mortality is greatly decreased in a group selected on this basis. It could be further reduced by skilful administration. Doubtless colleges could be induced to waive their minor stipulations in favor of such material, and thus eventually enable a school to place its whole emphasis on the proved quality of its product rather than on negligible details of admission requirements which at present seriously interfere.

A choice between the two plans here illustrated is scarcely possible as yet. Certain features—the common housing, convenience of transfer, opportunity for mingling groups in social and athletic interests, less liability to outside criticism, and the general exemplary effect of a top section in every large school, might appear to favor the second scheme. It is noteworthy that in the observed attempts to carry out this principle the difficulties arising from external protests, whether from parents or in the name of democratic equality, have been negligible. The chief and very serious obstacle, in some cases, is the attitude of both teachers and principals. Too often they regard the "loss" of their good pupils as a personal rather than professional matter, even though it is evident that the less gifted classes develop more power, emulation, and leadership when they are homogeneous than when overshadowed by comrades who continually discourage and put them to shame. The adjustment of this element in the situation is likely to go far in promoting the practical success of the idea.

*c. Feasibility of a concentrated secondary organization*

If the foregoing contentions hold—if we gather our eight years of secondary schooling into one unit and segregate those young minds that give scholastic promise into a special group, certain important conclusions follow.

*Gain in age through segregation*

The group so brought together will be young in proportion to the degree of selection. Both secondary and collegiate studies of the age of students with reference to quality of work agree that, in general, the better the record, the younger the student. This it is indeed logical to expect. The Walnut Hills School of Cincinnati graduates its selected pupils at the age of seventeen years and nine months, more than a year in advance of pupils in other Cincinnati high schools. The first class to graduate from the upper section of the James Madison School will leave this year (1927) at an average age of sixteen years and five months, or nearly two years in advance of the usual age for entering college.

This means that a selected group could remain in school probably one year longer than at present and still graduate at the average age now current for admission to college, eighteen years and six months.[1] They would have entered at the age of eleven years and six months or seven years earlier. Thus one of the two years added by including the junior college would have been recovered.

*Gain in achievement through reorganization*

With such a group of pupils in hand it would be simple to apply the principles of a thorough intellectual education, principles which the high school abandoned, first, because of the example of the college, and, second, because such principles became increasingly difficult of administration in an indiscriminate throng of pupils differing widely in ability and persistence. What little experience we possess indicates that the great majority of pupils of recognized scholastic powers, starting, in most cases, at eleven years of age, would remain throughout the course. It would thus be possible to develop a substantial curriculum with consistent and cumulative effect to a conclusion hitherto unachieved in the American high school. We should have rid ourselves of two demoralizing breaks, one after the elementary school and the other between high school and college — both sources of much waste and delay. We should, therefore, be in a position to treat secondary education as a unit and preserve the natural momentum that such treatment implies. It is reasonable to believe that in seven years, under such circumstances, we could cover more satisfactorily than at present the work now spread over eight years in three separate schools, and deliver our pupils thoroughly prepared at eighteen years of age to what is now called the junior year in college. Given equally good material and as efficient an organization, we should certainly be able to produce as competent and resourceful thinkers as do English schools or those of any other country in the same time. We should thus have made up the second year by which the secondary course was apparently lengthened when it was made to include the junior college.

In other words, as the consequence of our proposed consolidation we should have, instead of an eight-year course for average pupils beginning at twelve years of age, a seven-year course for capable pupils beginning at eleven years of age and entering college at the level of the present junior year when they are eighteen.

*Determining principles of procedure with a select group*

The stipulation just mentioned that certain principles of procedure be employed for a select group of pupils is so important that it behooves us to keep clearly in our minds just what is implied. Any outcome such as was forecast stands in direct connection with the following conditions:

(1) The education of these youth should proceed with a comprehensive aim. That is, in addition to a group of minor objectives set for the ensuing term or year, there should be a clear conception on the part of every pupil as well as teacher of what, at

[1] Association of Colleges and Secondary Schools of the Middle States and Maryland, *Proceedings of the 39th Annual Convention* (1925), p. 58.

eighteen years of age, these prospective brain-workers should be qualified to do. Notably their attainments, as already indicated, should include the power and disposition habitually to formulate sound independent judgments and the ability to use books.

(2) There should be marked continuity of contact between such pupils and good teachers — that is, of course, the *same* good teachers. To teach with a serious aim means consciously to influence a continuing process of growth in the pupil. This is impossible on the brief acquaintance of six months or a year. Teachers who would penetrate the heart of their professional problem must be able to deal with a prolonged sequence in their pupils' intellectual development. If college students under a tutorial system require this for the best results, how much more the unformed minds of adolescents.

(3) A good education is one that involves a high degree of continuity in its subject-matter. Skilful teachers may supply an abundance of illustrative material along the way, provided that the main lines of a pupil's whole mental experience, of his daily study, of his periodical review, and of his final intellectual possession are never obscured, but stand out with increasing vividness and significance as the curriculum progresses. With our system of credit units it is difficult to accomplish this. Such disjointed programs as we now compose constitute a species of intellectual vaudeville — a series of disconnected "turns." By contrast, a real curriculum is a unitary thing with interesting, continuing characters and a cumulative action and interaction that bind all parts together into a structure that can be long remembered and enjoyed.

It is extraordinary that a country that studies, talks, and expects so much of "psychology," that has developed "doctrines of interest" and "project methods" as has no other nation, should, in its most conspicuous intellectual activities — the school and the college — ignore as does no other nation the elementary laws of mental operation.

(4) Whatever may seem wise with pupils of limited mental abilities, there can be no question that capable pupils expecting to attend higher institutions should have both the discipline and inspiration that come from a well-conducted final proof of their powers. If, as seems inevitable, the college shall take the same step, such an initiation would prove but a fair introduction to the attitude and spirit in which a college works.

The foremost consideration, however, here as with the college student, is to provide the pupil with an incentive to gather and retain, as he proceeds, the best fruits of his own independent thought, and to look forward to a final and serious moral and intellectual appointment where he knows that he will be called upon to do his utmost. Be it remembered that such pupils as are here in view *prefer* the harder intellectual task; that is why they should go to college and become intellectual leaders. As Professor Terman found in his study of gifted high school pupils in California, "the less intelligence a subject demands, according to competent judges, the harder it is for these pupils, and the less they like it; the more intelligence it demands, the easier it is and the better they like it."[1] After adequate preparation a final test of their quality is natural and desirable. When for every sort of sport and voluntary activity we abet and encour-

[1] *Genetic Studies of Genius*, vol. i, p. 590.

age the struggle that, in spite of occasional abuse, seems to a true sportsman his rightful climax, shall aspirants for intellectual honors be deprived of that which should serve to focus their powers, prove their courage, and invigorate their ambition?

*3. Considerations affecting chiefly the college*

The recent expansion of collegiate education in the United States has, in part, closely paralleled that in our secondary schools.[1] An enormous increase in attendance due to an unprecedented national prosperity gives ample evidence of the faithful sowing of educational seed during years when material gain seemed to many to be the nation's only concern.

The task confronting all agencies for higher education in this country has suddenly become complex in the extreme. With an organization uncertain of its aims and methods, and resting loosely upon a mass of traditional hopes and good intentions, how shall we proceed to select from the applicants now thronging the college those whose mental aptitudes justify a further training for professional or general intellectual service, and at the same time provide properly for those whose abilities could best be directed into other channels?

At many angles of this problem the European perspective is distinctly helpful, and, moreover, it reënforces tendencies already active here and there among us.

*a. College and the secondary student*

The college will never be able to define its purpose satisfactorily so long as this is confused with the unfinished business of another institution. It can either segregate

[1] Any attempt to compare attendance at higher institutions in the United States and abroad is difficult and uncertain because of the numerous variables encountered. The rough approximation offered below may be not without interest.

| | | *Year* | *Men* | *%* | *Women* | *%* | *Total* | *%* |
|---|---|---|---|---|---|---|---|---|
| *France* | Total population — ages 20–24 | 1921 | 1,408,000 | | 1,642,000 | | 3,050,000 | |
| | Attending institutions for higher education | 1925 | 42,608 | 3.0 | 10,352 | .6 | 52,960 | 1.7 |
| *Germany* | Total population — ages 20–24 | 1925 | 3,070,000 | | 3,133,000 | | 6,203,000 | |
| | Attending institutions for higher education | 1925 | 99,451 | 3.2 | 15,671 | .5 | 115,122 | 1.9 |
| *Great Britain* | Total population — ages 20–24 | 1921 | 1,651,315 | | 1,928,918 | | 3,580,233 | |
| | Attending institutions for higher education | 1925 | 37,407 | 2.3 | 17,471 | .9 | 54,878 | 1.5 |
| *United States* | Total white population — ages 20–24 | 1924 | 4,359,351 | | 4,520,107 | | 8,879,458 | |
| | Attending institutions for higher education | 1924 | 454,397 | 10.4 | 365,755 | 8.1 | 820,152 | 9.2 |

The French census gives the various ages of the population in groups of five only. Therefore, knowing only the total number of French men and women from 20 to 24 years of age, inclusive, we are obliged to employ the same age-group for the other three countries.

Using this five-year group as a base and estimating the total number attending universities and colleges including professional and technical schools of all kinds above a secondary grade, we can secure a proportion that is at least more satisfactory than percentages of gross population.

Both census and attendance figures are doubtless disturbed by effects of the war in some cases. They do not tally exactly as to year. The French attendance data were drawn from the official *Annuaire de la Statistique générale de la France*. For Germany the *Statistisches Reichsamt* furnished attendance figures and as yet unpublished returns for the census of 1925. In Great Britain the attendance figures were compiled from the *Universities Yearbook* which includes several minor institutions not listed by the University Grants Committee. Part-time and evening students are omitted. In the case of 15,167 students the sex was not stated; these were distributed in the same proportions as the remainder. The census figures for the United States as of 1924 are the estimates used by the National Bureau of Economic Research. The attendance figures for the United States include four-year teachers colleges but exclude normal schools — a selection that appears best comparable with the classifications abroad; otherwise they are as given for universities and colleges by the U. S. Bureau of Education. They omit all colored, preparatory, summer school, extension, and correspondence students. Were we to include students in normal schools, the proportions in 1924 would be: men, 10.8 per cent; women, 10.1 per cent; total, 10.4 per cent. Foreign students are everywhere included.

or exclude such matters, but as it values its integrity it cannot ignore them. It is even possible that some colleges do not understand the difference between essentially secondary and true collegiate work. In such cases an attempt on their part to define each would be a useful preliminary.

Few American institutions could profitably dislodge outright their secondary incubus as Johns Hopkins University hopes to do by the simple expedient of abandoning the first two college years. It is not a question of arbitrarily cutting off so many "points" or "semester hours." As we have already seen, it is a question, partly of selection, partly of maturity of intellectual attitude and habit, which comes early to some and later to others. For pupils who should go to college these qualities form the natural outcome of a well-planned adolescent education, compactly and separately organized. A movement in this direction is well advanced in this country, although the college name still dominates it much as the ghost of a horse long stalked before every automobile.

It seems probable that the "junior college" will eventually consolidate with the high school and the junior high school to form a single institution for higher secondary education as well as for many types of "semi-professional" training for which we have long needed adequate provision. Meanwhile the college will have to take independent measures. Whether it segregate its "preparatory" work or abandon it altogether, the line between these two phases of education should be clearly marked, not in "hours" or "credits," but in unmistakable evidence of fitness to proceed. By its manner of enforcing this delicate distinction each institution may do much to make clear the meaning of its own aims.

In this respect prompt and well-calculated action on the part of the college will nerve and support the secondary schools as nothing else can, in hastening the important developments to be hoped for among them. As soon as the college shall determine for itself a practicable standard of intellectual ability, to be required for admission to that phase of its work by which it desires mainly to be judged, the school will have every inducement, both internal and external, to act accordingly. Under the existing collegiate system of promiscuous admission and graduation without substantial intellectual discrimination many leaders in the secondary field have long despaired of changes that they would gladly welcome.

Three American institutions may be cited to illustrate three different ways of handling, within the college, our problem of what may be termed higher secondary education.

*Secondary students at the University of Toronto*

The University of Toronto, a Canadian institution of great interest, embodying as it does many English traditions worked out under conditions resembling our own, admits students only by examination. It offers two forms of matriculation, one for the "pass" course and one for honors. The first, representing approximately the equivalent of graduation from a good high school here, admits to a four-year course similar in

general to that of the average American college. "Pass" students at Toronto in 1926–27 constituted forty-three per cent of the 2344 undergraduate students in Arts. Men were admitted to the pass course in 1926 at an average age of twenty years; women, at eighteen years and seven months. The second examination, that for honor matriculation, requires at least one full year of additional secondary study and often more. It admits to a course quite unlike the usual college course with us, as will be noted later. The honor students last year numbered fifty-six per cent of the undergraduates in Arts and the entrants of this grade last fall came in at the age of eighteen years and six months, both men and women.

The purpose of the honor course at Toronto is to provide the best possible intellectual training for capable minds, and it is on its accomplishment with these that the University bases its reputation. The criterion of selection and exclusion is as nearly as possible the evidence of independent work. In 1926 seventy-seven per cent of the first-year honor group passed the final annual examinations. Of the remainder, four-fifths were transferred at once to the pass course.

*Secondary students at Harvard College*

Harvard College, like most colleges in the United States, admits all beginning students to the same freshmen status. The changes of the past two decades introducing, as they have, a general examination in a field of concentration to be chosen at the end of the first year, have resulted in converting this year into a period of trial and diagnosis before the student undertakes with his tutor the responsibility of study independent of his courses. The student who is incapable of such work or disinclined to it either must drop out, or if he can pass his course examinations term by term, may remain and try conclusions with the general examination. This must be passed to secure even the ordinary degree without distinction. Thirty per cent of all students, or seventy per cent of those with rank sufficiently high to permit it, are at present definitely working for the degree "with distinction," comparable elsewhere to honors, and the proportion is steadily increasing.

*Secondary students at Swarthmore College*

Swarthmore College admits to a special honors group those who show in their courses of the first two years a definitely marked intellectual capacity. Such selections now number about forty per cent of the third and fourth-year students. They do work independent of courses for a final general examination while the others take the regular curriculum. This year for the first time the regular students also will be required to take a general examination in their major subjects.

The University of Toronto has had its present plan in operation for many years. At both Harvard and Swarthmore the new arrangements are in the process of evolution. Many other institutions have plans for the segregation of honor students at

various points, but in very many cases so few students are involved as to deprive the schemes of much significance.[1]

*At what point should the college discriminate?*

Some importance attaches to the point in the four-year course at which the necessary discrimination should be made. A university that possesses extensive graduate departments might with confidence turn over to the secondary schools or to the junior college the first two college years and still retain for itself such a unit as would encourage coherent and effectual work for higher degrees. On the other hand, a college now conducting a four-year course could scarcely afford to omit the first two years and to offer solely an advanced sequence of study two years in length. With an eye to coming changes in secondary schools such a college might be well advised in extending its selection of honor students to include the sophomore year, and in encouraging secondary schools to prepare pupils for that level. This step would involve the creation of at least a three-year unified offering, the standards of which could later be raised as the secondary schools improve. Accepting pupils at eighteen years of age from the seven-year "junior college" that has been described (page 112), a three-year course would give to the bachelor's degree a value equivalent to the present master's degree. And even so the degree of bachelor could be achieved at least one year earlier than the present average age.

In some quarters there is a feeling that changes such as these would end in disrupting the liberal arts college. On the contrary, the extension of the project would merely restore to the college its true character. Wherever this character has not largely disappeared beneath the avalanche of numbers, it persists in the intimate relations, growing mainly out of residence, between teachers and those students who are fitted to deal seriously with the things of the mind. Institutions that have found the way whereby these realities may be permanently safeguarded give the impression of having entered into the joy of a great discovery.

*b. The aims of a college*

The most effectual way for a college to gather in its own among those who consider themselves eligible for advanced study is for it to state clearly and in some detail just what a prospective student could expect as the result of a definite period of work — one year, two years, four years. To suggest a summary example: "We are in a position to give you competent aid in mastering two foreign languages; one very

[1] The opportunity should not be lost for calling attention to English experience with a movement precisely similar to that of our "junior college." The college courses of the University of London, for example, are of three years duration and provide for an intermediate examination at the end of the first year. Shortly before the war the English Board of Education inaugurated a policy of subsidizing such secondary schools as would give an advanced course of two years after the matriculation examination at the age of about sixteen. This course prepares for the "higher school examination" at the age of eighteen and is accepted as a substitute for the first year's work and for the "intermediate" examination at the University. Three years must, nevertheless, be spent thereafter for the degree. More than half of the entering students present themselves after the intermediate examination while the remainder prepare for that examination at the University. The advantage of remaining at school is that the "higher school examination" carries with it the chance for a scholarship. Hence this group is steadily growing and the University is well on the way to an increase of two years in the maturity and previous training of its student body.

thoroughly, both as spoken and written, together with its literature, the background of its history, and the national culture that it represents; the other less completely. You will acquire in addition a fluent reading knowledge of Latin and a comprehensive acquaintance with modern English literature. This is the result for which you will be held responsible, but informally all of the courses and resources of the college are at your disposal."

In most cases a student who had carefully tested his abilities in the secondary school would know at a glance whether or not such a program appealed to him. If not, a group of choices similarly defined would arouse unwonted reflection, not on entering college only but for months before. It is a question not of a vocation, but of a commitment to an intellectual aim definite enough to be thoroughly understood and appreciated —a whole of which each prospective effort will constitute an intelligible part. Such a purpose has reality and charm. It need not involve the entire course, but with a reasonable supplement or alternative it should relieve the endless and often painful groping that our credit system has exaggerated into a virtue. Busied from well back in his secondary course with varied but definite possibilities, the young student might give much-needed thought to his own future instead of being drugged with the easy, respectable, and irresponsible notion: "Get the degree first, then decide."

The modern college has no lack of aims—from the point of view of those who run it. Its representatives can discuss wisely and at length the philosophy of a college education as they see it. What is lacking is an intellectual purpose that may confidently be offered to the student with the expectation that it will arouse him in any such manner as a serious purpose moves an active mind in every-day life. Athletics he knows. College life warms his fancy. Opportunities for leadership, for social satisfaction—some or all of these make a strong appeal. But for a conception of his intellectual opportunity the conscientious and capable freshman is literally reduced too often to the belief: "Get your lessons and all will be well"—the academic version of "Be good and you will be happy."

Our failure at this point to capitalize the intellectual vision, energy, and enthusiasm of young minds trying to get their bearings is appalling. It is certainly responsible for much that is wrong with our higher education. True it is that other aims are valid besides the purely intellectual. Some of them are apparent to the student; of others only those are conscious who direct his life. But to the student, the intellectual aim must remain consciously uppermost—the core of the whole operation; on its sanity, its clarity, and its primacy depends the final worth of whatever is accomplished. Students in the arts and pure sciences would spend themselves as devotedly for congenial, plainly defined objectives as others do now for a knowledge and power that will pass muster in medicine. Similarly, the colleges themselves, if they once began to appraise their own resources and to determine what and how many valid individual objectives they could reasonably set up, would experience in the process a thrill of reality and consequence that has long been lacking. Hitherto they have prescribed elabo-

rately for a hypothetical "student body"; if they were to consider as attentively the individual student mind of a given bent, the best that they could devise might surpass our most sanguine expectations.

*c. Procedure consistent with effective aims*

It is difficult to perceive how an intellectual aim that shall dominate the student can be other than a sharply defined statement of materials to be mastered, of powers to be generated, of technique to be acquired within the proposed period of effort. And the obvious way to control the operation is to investigate and discover whether the desired result has been accomplished.

This is the only type of procedure that Europe has to suggest for conducting the process of higher education. The periods of study are usually considerable, and the subjects or groups of subjects are comprehensive, since it is in dealing with a large and difficult mass of material that the mature student acquires the most desirable elements of his education. The examination is thorough. It places the largest possible demands on the constructive powers of the candidate in order that it may dominate and focus his preparation on the development of the finer products of thought. This is conceived to be education, and the examiners ask in the same terms, at a definite time and place: "Has this been achieved?"

From this logical procedure the prevailing practice in the schools and colleges of the United States is poles asunder. Because of accidents in our national development we have gradually cut off the mental current in the magnet that held our educational elements to one another. As these have dropped apart, we have arbitrarily standardized their size in the attempt to fit them into some mechanical combination. The notion of measuring educational values in equivalent time credits and piling them almost indiscriminately one upon another to attain a degree would appear fantastic were it not so familiar. It is pure concession; it contributes nothing. For the very reason that it is an ingenious notion, it diverts attention from the essential values; such permanent educational results as we secure, occur not because but in spite of it.

This universal concern with the "unit" and the "point" has made it difficult for many to think of education in other than quantitative terms. Quality is an element that we admire and approve but hesitate to touch in comparison with the comforting security of "credits"; our pupils and students catch the cue at once and do the same. The system is regarded with amusement and incredulity abroad. It has been on trial for many years, and neither in theory nor as exemplified in its effects upon Americans who go to study in other lands, can even the most intelligent European there or here find reason for regarding it as other than absurd.

The moment that permanent, precisely drawn aims are established, this flimsy fabric necessarily disappears. In many colleges and universities there have developed since the war "honor" groups of carefully selected students who are relieved from the usual engagements and are allowed, under the guidance of their professors, to

read independently for examination.[1] This is encouraging so far as it goes, but for many years in our colleges small groups of so-called "honor students" have been, in a way, parasitic on the main body. The clear intellectual atmosphere in the University of Toronto, by which many university faculties in the United States have profited, is due not to the existence of an honor system, but to the fact that fifty-six per cent of the undergraduate body are doing a definitely intellectual job. The reason the student attitude at Harvard and at Swarthmore has been completely transformed within a decade is that seventy per cent of the Harvard eligibles are working for a degree "with distinction," and forty per cent of the Swarthmore upper classmen have a single clear-cut purpose that for twenty-four months remains fixed and compelling. Study is actually "the major sport" in these institutions, and is so understood by those who are not, as well as by those who are, honor students.

The numerous beginnings just noted have been provisional and cautious as befitted a drastic change. Where introduced on a large scale the plan has been supported with some sort of tutorial system to ensure success. Thus Swarthmore estimates an increase of about twenty per cent in the teaching staff due to the honor group, and Harvard has added the equivalent of more than thirty-five full-time men in the Division of History, Government, and Economics alone.

It should be pointed out, however, that the tutorial system and the plan of final examinations are two completely distinct phenomena. This is clear from our study of foreign institutions as well as from the observation of those here referred to. A tutorial arrangement is unquestionably a powerful ally, but, as the modern English universities prove, an effective final examination system may function successfully without it. Indeed, there are some who believe that a tutorial system, with one man as guide in the major phases of a student's work, is less effective than contact with a number of men who are experts in their respective branches and who meet the students in groups not too large to preclude close acquaintance.

It is difficult to see how a well-managed college, particularly one of the smaller institutions in which the college quality is still more than a name, could incur aught but advantage in a readjustment even with its present personnel. This would involve a broad realignment of courses in groups of related departments to which students would commit themselves; the construction of examination designs or a syllabus in each of these groups; the discontinuance of credit-granting for any purpose except as a result of general final or semi-final examinations; the continued use of lectures, class exercises, essays, tests, and so forth, as now, but so planned that the student on his advance into fresh territory would have in view the entire field from the beginning; the frequent use of discussion groups possibly led by students; a lavish expenditure of thought and time upon examination procedure—written, oral, external or internal; the opening of all classes to the whole family of students for free visiting and

[1] For an authoritative study of these various schemes see the Bulletin of the National Research Council entitled *Honors Courses in American Colleges and Universities* (Revised edition), prepared by President Aydelotte of Swarthmore College (Washington, D.C., 1925).

observation. The change could be made gradually by groups of departments coöperating in divisions; it could begin with the first, or the second, or the third year of the course; intermediate examinations could be introduced, and special regulations for a "pass" and an honor contingent could be developed.

The immediate outcome of such a revolution in an institution may be foreshadowed with fair accuracy. The students, shaken out of the cradle of conventional credit courses and deprived of the bottle-feeding hitherto accepted as their natural lot, would be compelled to define their own problems and would begin to think. Many to whom this would become intolerable would retire—an automatic solution of one of the college's acute problems. The professor, relieved of petty crediting, would find himself beset with innumerable opportunities for genuine education—that is, with a pressure toward intellectual work rather than a tolerant indifference or a definite distaste. Some foresee from such a change a loss of attendance in favor of competing neighbors. Such fears are certainly unfounded. Intelligent and ambitious American youth would be the first to sense the difference between the genuine and the spurious intellectual opportunity, and the American public, as on other occasions it has abundantly shown, would back courage and sincerity with its approval.

*d. Practical experiment in placing the intellectual program first*

Reference has already been made to three American institutions that illustrate different forms of approach to the problem of selecting the able mind and guiding its intellectual development. It is possible that the most useful conclusion to a study of this many-sided problem would be a somewhat fuller exposition of the experience of these institutions.

(1) For the purpose before us the significance of the University of Toronto rests in the fact that it conducts special curricula for a specially prepared and selected group of students numbering more than half of its entire undergraduate attendance. These curricula are grouped about twenty-six different subjects, or combination of subjects. Although there is no final comprehensive examination, the courses in these subjects are laid out in an obligatory sequence as though there were, and they are supported by other related requirements, usually with narrow options, drawn from either the honors or the pass list.

The examinations are annual, covering only the work of the year. They must be passed regardless of term work, although this is considered in arriving at a final verdict for promotion. While pass students are held to course requirements, the honor students are, within limits, free to do as they like. Those who fail may be transferred to the pass course during the first two years, but with difficulty thereafter, because of the sequences enforced in that curriculum.

The policy with regard to examinations is not the unanimous verdict of the University on this point. It reflects local conditions during the development of the institution, and to some degree the influence of procedure in the United States. Certain

members of the faculty who have had their training in England would gladly modify it in favor of a general final examination.

(2) Honor courses at Swarthmore College have been in operation since 1922, and now include ten divisions of related studies, covering practically every department of the college. The honor student is selected upon the basis of ability and promise as shown in the first two years. He is relieved from ordinary class recitations, and for his junior and senior years devotes himself to reading in a well-defined field under the guidance of the head of his division. Groups of five or six honor students meet twice a week with one or two professors to read papers and to discuss the reading of the week. After two years of such study, honor students take eight to ten three-hour written examinations and a public oral examination, all conducted by professors from other institutions — an admirable guarantee that the standards of the College shall enjoy the tonic of constant outside criticism. Thus far no student has failed, since doubtful candidates are returned to regular class-work as soon as their weakness is discovered.

The meaning of an "Honor Division" as contrasted with a department is best shown by quoting in full the outline of the course followed in the Division of English Literature, a division conducted jointly by the departments of English, History, and Philosophy.

> "The field covered by the course is the history of English thought from the Fourteenth Century through the Nineteenth, with its necessary background of social and political history. The main part of the work is comprised in the study of six topics outlined below. Honors students are left to prepare for themselves those portions of English History and Literature not covered by the special topics.
>
> I. English Literature of the periods of Chaucer, Shakespeare, and Milton.
> II. The Social and Political History of England from the Black Death to the Restoration of Charles II.
> III. The Transition in England from Mediæval to Modern Thought during the Renaissance and the Reformation.
> IV. English Literature from the French Revolution to the end of the Nineteenth Century.
> V. History of England from the French Revolution to the end of the Nineteenth Century.
> VI. Philosophy and Science in the Eighteenth and Nineteenth Centuries.
>
> "The set books required of all students are announced in a list published two years in advance and may be changed after each two-year period.
>
> "Students desiring to read for honors in this division should enroll in their Freshman year in a special section of English 4, A General Introduction to English Literature. They are also required to take, in their Freshman or Sophomore year, the following courses: (1) Introduction to Philosophy, (2) Logic or Scientific Method, (3) A General Survey of English History."

Measured by the attitude of students and teachers, the experiment at Swarthmore

is an undoubted success. Unique of its kind in the United States, it was developed cautiously and with extra funds for increasing the staff. However, it is the feeling of those in charge, that the same or a similar undertaking might be successfully carried out in other colleges by a reorganization with the existing personnel.

(3) The plan of a general final examination was first introduced into Harvard University[1] in 1911 at the Medical School. It was later applied to the College in the Division of History, Government, and Economics which first gave a general examination in 1916. Since then the plan has been adopted by all departments except the Natural Sciences.

The divisions, or department-groups, are unlike in many respects, each having its own regulations and procedure. One division may give students' course marks large value in the final ranking, another may cut them off with ten per cent; one may give an oral test, another may not; one may divide its examination into sections a year apart, another may examine altogether at one season. Thus a certain organic variation testifies to the genuineness of the adaptation in each department or departmental group. The examining committee, which bears the brunt of divisional toil, is naturally the custodian of the division's academic tradition and the guide of its progress. As its question papers accumulate and are criticized by the professors and tutors, a working body of precedent for that division is gradually established.

As found at Harvard, the plan of final examination is so interwoven with the tutorial arrangements which accompany it that the two are with difficulty considered separately. Nevertheless, several divisions employed a general final examination before they made use of tutors, and there is no inherent connection between the two features beyond an extraordinary affinity.

Every Harvard undergraduate in the three upper years is assigned to a tutor who normally remains with him throughout the college course. The tutor is expected to meet the student frequently, to discuss with him his class-work and his reading, to consider his academic problems, and so far as possible to become an intellectual companion rather than an instructor. His aim is to arouse intellectual curiosity and ambition in his charge; to prove that although hard thinking should be accurate it may also be vivid and attractive. In some cases the tutors are young men secured for the purpose, in others they are senior professors. In the Department of Mathematics, which has most recently adopted the plan, each teacher undertakes some tutoring, thus temporarily avoiding additions to the staff. It is obvious that in so intimate a relation the personal element is of first importance and must be satisfactorily adjusted.

The tutor and student become associated at the end of the first year. It is then that the mature freshman looks over the ground and lays out the remainder of his curriculum. Unless he has already taken one course in his chosen division, six of the twelve courses left to him after the freshman year must be assigned to that division and, if he

[1] A pamphlet published by the University (1927) and entitled *General Examinations and Tutors in Harvard College* contains a detailed description of the system. See also an article by Professor J. S. P. Tatlock, Chairman of the Division of English, in *The Educational Record* for January, 1927, published by the American Council on Education, Washington, D. C.

seeks distinction, still more are required. In the latter case a thesis must also be prepared. He may begin his work with special reading during the first summer. From that point forward he labors on a general program of which courses are only a part. With the coöperation of his tutor he gradually builds up for himself a syllabus covering the whole field on which the three years are to be spent. With this before him he correlates and reviews his own courses, visits other courses, attends special lectures, and supplements his thinking with as much additional reading as he feels inclined to do.

As the tutorial work develops, the tendency is for course requirements to relax. Courses that are merely reproductions of material in existing books that may be got by reading disappear in favor of those that are significant expressions of the teacher. Although the student is still formally held to course requirements, he is given considerable liberty in his senior year, especially if working for distinction. This drift of responsibility from the professor to the student will be emphasized still more by a somewhat radical measure planned for 1927–28. From Christmas to the mid-year examinations and from early May to the June examinations all class-work, except for freshmen, and all tutorial work, except for seniors about to take a final examination, will be discontinued. Thus for a considerable period each student so relieved will labor independently. More and more, as the new attitude prevails, all courses are thrown open to students who wish to visit them, the professors occasionally supplying all the tutors with full lists of topics to be treated on different dates. It is not unusual, therefore, for a class to have fifteen or twenty student visitors or even a crowded hall. This, with the marked increase in the use of the library, impresses one as a sign of spontaneous interest not usually connected with formal college exercises.

The plan of the final examination depends upon the division. In the Division of History, Government, and Economics it is threefold, one paper dealing with the general field of the entire division, a second with the work of the department chosen, and a third with the special topic developed within the department. The oral examination may cover the whole subject. In divisions of the size that obtains at Harvard each examination is essentially external in so far as course instructors and tutors are concerned.

An interesting and important feature of the Harvard arrangement consists in the identity of the curriculum for both "pass" and "distinction" men. A candidate for distinction registers the fact when he makes out his curriculum. Many, however, sooner or later drop into the lower group, while the timid or indifferent mind is often late in discovering its opportunities. To hasten this discovery is the special task of the tutor. Therefore, until the last year, when the thesis must be prepared, it is still possible to go out for distinction, and the cases of eleventh-hour conversion have seemed amply to justify the policy. Consequently, instead of being classified in separate levels as the result of an initial and inexperienced choice, all students are finally measured by the same scales — a procedure that, in the case of a group originally well selected, has possibly both educational and sentimental value.

The effects of the new examination and tutorial plan are difficult to measure in precise terms or figures. Some favorable conclusions may be drawn from the fact that during the four years 1923 to 1926, inclusive, the proportion of candidates for distinction increased as follows: 21 per cent, 31 per cent, 41 per cent, 47 per cent. This year only students with relatively high standing are permitted to register for distinction. These number 986 men, of whom 70 per cent are trying for the honor. More convincing proofs, however, can be gained from contact, even superficial contact, with the staff and students. To one who will talk at leisure with professors and tutors, sit in at tutorial conferences, and observe the general undergraduate attitude, there can be no question that a new era has begun at Harvard College. As one tutor expressed it, "We believe that the 'gentleman's mark' has disappeared. The boys are no longer ashamed to work."

## CONCLUSION

It is easy to criticize the casual forms of American education. In the bewildering variety of this vast country almost any foolish jibe can somewhere be substantiated. But successfully to catch and hold the spirit of American education is more difficult. The critic of yesterday may return to-morrow only to find that the defective object of his scorn has become a structure of singular power and beauty. Witness the transformation, within a brief score of years, of American medical education from a struggling undertaking hampered at many points by low standards and commercial exploitation to a system of schools as effective as can be found anywhere in the world.

To one who looks beneath the surface there is no greater satisfaction or higher privilege than to be permitted to coöperate with others, equally confident, in the study and promotion of this rapidly evolving enterprise. The elements of our national personnel are marvelous in their potential capacity, our material resources are almost unlimited, and the general temper is expectant and highly responsive. Even in the welter of present confusion there are plainly discernible the beginnings of a new order suited to the fresh demands of the new and rising level of our national life.

It seems peculiarly appropriate under such circumstances that, with the growing intimacy of all the regions of the earth, the great nations which in the past have defended and cherished every human advance should, with generous appreciation, be solicited for the proved lessons of their hard-won experience. After all, the central purpose is one we hold in common. If, with growing light and the fresh forces that we command, we shall succeed eventually in making a contribution to equal theirs, we shall not so easily discharge the debt we owe them.

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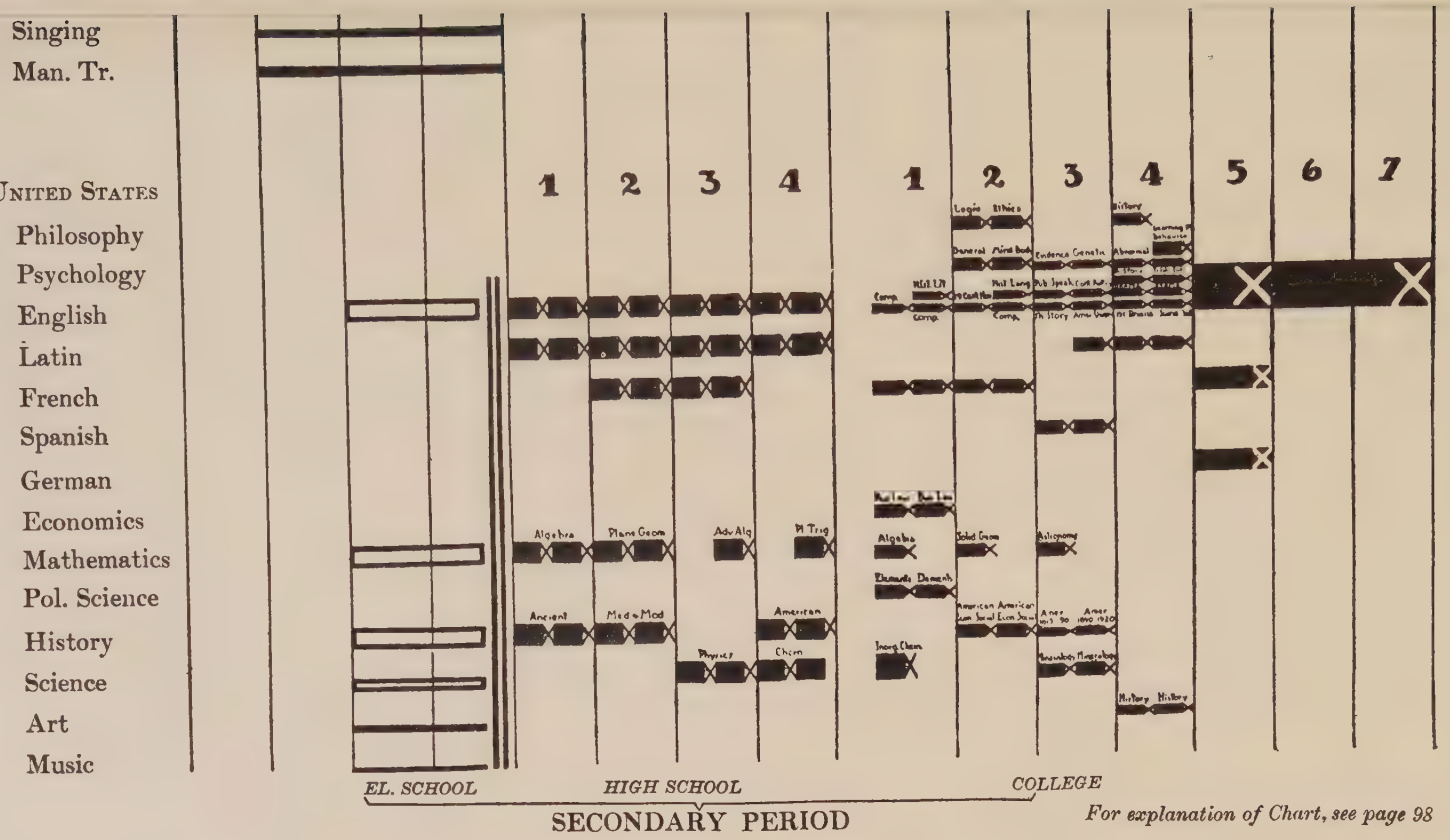


*For explanation of Chart, see page 98*

# AMERICAN EDUCATION: ITS MEN, IDEAS, AND INSTITUTIONS

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